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JPRS-EEI-85-004

11 January 1985

# East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

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11 January 1985

# EAST EUROPE REPORT

## ECONOMIC AND INDUSTRIAL AFFAIRS

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ECONOMIC DEVELOPMENT, EDUCATION RELATED TO NATIONAL DEFENSE

Sofia PLANOVO STOPANSTVO in Bulgarian No 9, 1984 pp 4-10

/Article by Col Gen Dimitur Dimitrov, vice chairman of the State Planning Committee: "Contemporary Issues of the Bulgarian Communist Party's Economic Policy and Its Significance for National Defense"/

/Text/ In the Bulgarian Communist Party's program, adopted at the 10th Party Congress, it was noted that the construction of a developed socialist society is the immediate historical task of the party and the Bulgarian people. Carrying out this task is a necessary and inevitable step on the path to communism.

Constructing a mature socialist society is a continuous process, during which the material-technical base for such a society must be created, and a number of other tasks related to perfecting the base and the superstructure, the social homogeneity of the society, the people's living standard, and the development of the socialist personality must be solved. All these problems are the subject of the Bulgarian Communist Party's economic, ideological, and political activity, as well that as of its management organs. The theoretical elaborations and practical approaches of Comrade Todor Zhivkov, contained in his works after the 12th Party Congress, have tremendous significance for their resolution.

The progressive development of our nation along the road of building a mature socialist society was clearly outlined by the 12th Congress of the Bulgarian Communist Party, in the documents for socioeconomic development in the Bulgarian People's Republic during the Eighth 5-Year Plan (1981-1985) and on to 1990 adopted by it. Despite the negative influence in areas related to the energy crisis, the increase in prices on the international market, and certain unfavorable climatic conditions as well, our nation achieved significant success in the period just past, in putting into effect the resolutions of the 12th Party Congress and the Eighth 5-Year Plan.

The contemporary issues of the Bulgarian Communist Party's economic policy, the successful resolution of which influences the dynamic and stable development of our country, are the subject of actions by all party organs, all labor collectives, and the whole nation. One of these fundamental issues is the future construction of a material-technical base for a developed socialist society, increasing the social productivity of labor, and the intensive development of the areas of the national economy. The Bulgarian Communist Party's

12th Congress pointed out the main directions for building up the material-technical base: comprehensive automation, comprehensive mechanization, and the widespread utilization of experience, both from here and abroad, in this area.

An important factor for the intensification of the national economy and increasing the social productivity of labor is the full and efficient utilization of the basic funds and the decrease in material expenses for generating each unit of production. For the intensive development of the economy and the increase in the social productivity of labor, the most economic utilization of power supply, fuel, raw materials and materials, which rise quickly in cost on the international market, must be of primary significance. This economizing is a factor in increasing profit and the growth of the national income. This is why economizing on energy, fuel, natural resources and materials is a matter for the whole nation, a most important task for the workers. It requires quickly creating and implementing items with low energy and material costs, perfecting technological processes for more profound, comprehensive, and waste-free utilization of natural resources and materials, investigating all the possibilities for replacing imported and scarce raw and other materials with local ones, or materials from the member nations of CEMA. Maximal use must be made of scrap material.

The intensification of economic development and the improvement in the social productivity of labor in the present 5-year-plan and on to 1990 is being carried out on the basis of a broader and larger-scale implementation in practice of the achievements of the modern scientific-technical revolution. Along with this, the task is to implement the top achievements in our and foreign scientific thought at a rapid place. In the plan for 1984 alone, the adoption of around 344 scientific-technical tasks of national significance is foreseen. Of these, about 110 are for implementing new tasks and for perfecting the technologies now in place. For the production of new and the perfection of production items, around 67 scientific-technical tasks are foreseen, and for the automation of production, labor and management, 43 tasks are scheduled.

Together with the implementation of new scientific-technical achievements, with the plan for the Eighth 5-Year Plan and the elaborations for the following 5-year plan, efforts are being made to perfect the divisional and subdivisional structure of the national economy, based on the multiplication approach. The process of concentration, specialization, and batching of production is being expanded. The proportionment among the development of the auxiliary, intermediary, and final echelons is being improved. Simultaneously with this, conditions are being created for building small and mid-sized enterprises, equipped with highly-productive technology with multifunctional purposes.

The universal intensification of the national economy is closely tied to the development of its leading areas. The relative percentage of the national income from industry has risen from around 46 in 1980 to an expected 52 at the end of 1985.

Heavy industry continues to develop as a stable base for the economy. Power supply is also an important auxiliary level of material production and is

increasing its volume. New reactors of the Kozloduy Atomic Power Plant are being built with greater vigor, since at the end of 1985 the fifth reactor, with a capacity of 1,000 megawatts, will be brought on line. Construction is now being prepared for the second atomic power plant. The power output from thermal power plants is increasing; these work primarily with local coal. For this goal, the comprehensive development of Martisa-Iztok is being ensured, with a view toward increasing the extraction of coal from 30 million tons in 1980 to 44 million tons in 1985.

Reconstruction of the existing metallurgic capacities and building new ones is continuing; these should lead to an improvement in the structure and quality of metals. The production of high-quality rolling of steel alloys and sheet rolling of rust-proof steel is being adopted.

Machine building, electronics, robotics, and small appliance building are developing at a rapid pace. Special concerns are being devoted to the development of heavy investment machine building, the production of metal-working machines, computer and organizational technology, electronic and construction elements, the means for automation, communication and medicinal technology, which are growing in size annually, by 10-15 percent, during the Eighth 5-Year Plan. The production of forklifts, motor trucks, trucks, buses, road construction equipment, and internal combustion engines is being perfected. Gradually being introduced into production are rotary excavators for open pit coal mining, complexes for underground coal mining, crushing-milling and enriching equipment.

With a view toward expanding the nation's raw material base and improving the satisfaction of the consumers' needs, the development of the chemical industry is being accelerated. The production of encouraging and highly efficient small tonnage chemistry, such as preparations for the protection of plants, the chemical-pharmaceutical industry, mineral fertilizers, sulfuric acid, etc., is being developed at a rate that outstrips others.

Substantial changes are coming in the structure of light and foodstuffs industry in correspondence with the consumer demand on the domestic and international market. The production of commodities in light industry for children and young people is being developed at steady rates; the same is true for the meat, dairy, canning and sugar industries.

The course of intensification in agriculture is continuing, as irrigated areas are being expanded, irrigation systems are being used more efficiently, new technologies for cultivating the soil are being implemented, more highly productive harvesting technologies are being secured, and the coefficient for its usefulness is rising. On this basis, the output of grain, and especially corn, is increasing, and this is one of the fundamental preconditions for progress in animal husbandry.

The capacities for the production of building materials and construction and installation work are growing significantly. The industrialization of construction is expanding through the use of prefabricated construction and elements.

The transportation system is being perfected, and rail transport in particular is developing. The modernization of the rolling stock is continuing; the share of electrified and two-way lines is growing. By the end of the Eighth 5-Year Plan, it is expected that around 330 km of rail lines will be two-way, and that 452 km of lines will be newly electrified. The relative percentage of freight hauled by electric power is growing at the expense of diesel power. More diesel engines are being used in trucks, and their hoisting capacity and negotiability are increasing as well. The mechanization of loading and unloading work is being expanded and perfected.

The structure of the remaining areas of the national economy is also being improved and developed.

As a result of the increase in the social productivity of labor and the intensification and development of the areas of the national economy, the national income is growing and hard currency and financial resources are stabilizing.

The future construction of the material-technical base, the increase in the social productivity of labor, the perfection of the structure and the development of the areas of the national economy have substantial significance for the national defense. In this way, directly or indirectly, the preparedness of the national economy satisfies the needs of the armed forces for the defense of our socialist homeland.

First of all, the increase in the social productivity of labor, as a result of which material costs and the prime cost of production are lowered and profit is increased, permits the national income to grow. Its growth allows that portion of it to increase, and this portion is used not only for the armed forces, but also for the universal preparation of the national economy to function steadfastly under wartime conditions.

The growth in the basic funds and their fuller utilization permits expansion of the possibilities for the defense industries and response to the need for the national economy to reorganize more sites for military production.

Economy in energy, fuel, raw and other materials, and a decrease in their cost-incurring materials and items, which are used in military production, influence the prime cost of the latest military items and more indirectly lower the demand for defense spending. In the same way, the implementation of scientific-technical achievements also lowers that demand. In addition to this, the fulfillment of the tasks related to the development of civilian production and increasing the quality of the materials positively influences the levels of the parts which go into the production of military items, and their quality as well.

Perfecting the proportionality of levels and the area structure creates the conditions for doing away with cycles better, not only in the civilian but also in the defense industry.

The development of metallurgy and its decentralization will ensure the supply of higher quality ferrous and nonferrous metals, in rolled form, steel alloys and others, to the defense industry.

Building mighty machine building factories will permit the renewal of the equipment not only at civilian factories, but at the plants and combines for the defense industry, with new, highly-productive technology. Simultaneously, the defense industry will have even more automated lines and machines for comprehensive mechanization as the share of manual labor decreases.

Building small and mid-sized enterprises, furnished with highly productive, multifunctional technology, creates the conditions for decentralization and duplication of certain productions for the defense industry.

The development of power supply, and the electric energy system in particular, allows the possibility under difficult conditions of securing the nation's and the defense industry's needs for electric energy. The creation of the conditions for staged switch-on and switch-off of basic consumer electric energy will give us the possibility of increasing the stability of work in the areas of the national economy and the defense industry.

The machine building and electronic industries, small appliance building, the production of nonstandard equipment, and instrumentation supply all significantly expand the possibilities for satisfying the armed forces' needs with various types of arms and military technology of local manufacture. The contribution in this regard of the chemical industry is substantial. The share of the defense industry in the general amount of industrial production could be increased, if needed.

The development of light and foodstuffs industry and their raw material base permits the possibility of increasing the quality of military clothing and accoutrements, of increasing the quality and quantity of food products for the armed forces in peacetime and in wartime. Agriculture and the chemical industry play a substantial role in this regard. Agricultural production, the structure of its production, and the capabilities of the processing industry permit an increase in the stores of food products, which are necessary for satisfying the country's needs under special conditions.

The development of the transportation system has substantial significance not only as the connecting link between industry and agriculture, between producer and consumer in peacetime, but also as the system for satisfying the country's defense needs, connecting the troops with the reserve area and with production. Supplying the rail transportation system with new rolling stock, increasing the number of double lines and the possibilities for using two or three types of locomotive force maintains its significance for the national defense under modern war conditions. Simultaneously, the development of vehicular transport and the constant renewal of the vehicle supply with more modern transportation means significant increases in its maneuverability and loading capacity and ensures constancy in the armed forces' complex of vehicles. The development of water and especially pipeline transport have substantial significance for defense, since in case of need they could act in the armed forces' interests.

Another substantive issue in the Bulgarian Communist Party's economic policy is increasing the quality of production. This matter is of tremendous economic importance. The production of high-quality products with the available labor

resources and production capacities essentially means the production of more consumer values from the existing mass of raw materials, materials, fuel, and energy. An increase in the quality of products produced ensures the fulfillment of the socioeconomic tasks outlined by the 12th Congress of the Bulgarian Communist Party and the long-term program of the party for improving quality, affirmed by the National Party Conference in 1984.

High quality in production expands our export possibilities. It raises the nation's international prestige, as well as that of socialism in general. High quality in one's own production more fully complies with the greater consumer requirements of citizens and the production needs of the nation for raw materials, machines, equipment, etc.

The problem of raising the quality of production at the current stage is considered a basic one in the policies of the Bulgarian Communist Party.

An increase in the quality of production will come about through various forms of influence, most of all through the application of the new economic approach and its mechanism. A closer correspondence between wages paid to the producers and quality of production has substantial influence in this regard. Problems of quality are being resolved at all levels of the production cycle. The education and training of the cadres are of substantial significance in raising quality. The role and place of the cadres have been and remain primary in the struggle for the realization of the party's grand program.

Higher quality in production also depends to a great extent on management, planning, financing, price formulation, stimulation and control.

The problems of quality production are closely tied to increasing the nation's defenses. From this we see the necessity for an unceasing rise in the quality indicators of items produced for the defense industry. This must be carried out not from the point of view of marketing considerations, but most of all with a view toward improving the combat capabilities of our armed forces. Higher parameters for the combat qualities of arms and combat technology essentially lead to decreased costs for defense. Higher quality military production, when other factors remain equal, better satisfies military defense needs.

High quality in military and other items produced in the various areas of the national economy assists in giving rise to a feeling of national pride and worth among the soldiers and those who serve with them.

Perfecting the territorial structure of social production is another important issue in the Bulgarian Communist Party's economic policy. The task now is to complete each production cycle, as much as possible, in one territory, to expand the system of levels and efficiency of the production links.

A number of measures are being taken with regard to comprehensive utilization of labor, water, land, and other resources for multipurpose uses. In correspondence with this, new production capacities are being built and certain existing ones are being rearranged. In territorial units with relatively lower production



in border rayons and village systems of the fourth and fifth functional types, new capacities are gradually being brought on line. Significant capital investment resources are being secured for the resolution of certain of these problems by the okrug people's councils. In the village systems of the fourth and fifth types, and the border rayons, enterprises which require little in the way of transportation costs and ensure that labor will be used in all seasons, when this labor is not engaged in agriculture, are being developed.

The tendency bring together the level of labor resources' occupation is continuing, as the difference in the okrugs with the highest and lowest occupation of labor resources is diminishing. This year conditions for a more perceptible increase in the utilization of labor resources were created in Smolyan, Turgovishte, Silistra, Sidin, and other okrugs.

Planned development of the territorial units has substantial significance for the national defense. Under the complex conditions of a contemporary war, enclosing the cycle of production within rayons makes it more stable and less dependent on the functioning of transportation and other factors. Decentralization of certain productions from the larger inhabited areas and removing them to less populous ones has substantial significance for national defense.

The comprehensive utilization of various types of resources in the territorial units and their development essentially influences the state of economic and military-economic potential in a positive way.

The development of the territorial units positively influences the more even distribution of the population, which has substantial significance for its defense and the defense of the entire nation. Village systems able to satisfy their own needs create good preconditions for supplying the populace during wartime.

The question of training the necessary management and executive cadres of the national economy is closely tied to the resolution of economic problems, to which the Bulgarian Communist Party is devoting special attention. The educational system is being reorganized to resolve this problem. The task now for the educational system is to link itself even more closely with the needs of our economy, of our culture and science. Young people must receive an education which corresponds to contemporary achievements in science, technology, and production technology. It is necessary for them to be well trained professionally while they are still studying. Education and upbringing must form deep ideological convictions and high socialist consciousness in young people, in order to give them solid knowledge and permit them to master the given profession at the level of contemporary scientific-technical achievements. The educational system must respond to these requirements in the three stages of the polytechnical high school: first stage--acquisition of broad educational preparation; second stage--acquisition of a profession and defined specialty; third stage--mastering the concrete specialty under the conditions of the labor collective. The cadres with higher education will be trained on practically the same principal foundation.

The reorganization of education that has been pointed out, that is, the training of management and executive cadres, has substantial significance for the reinforcement of a number of labor collectives under special circumstances connected with the national defense. The system will ensure peacetime and wartime production, transportation, and communications cadres which are highly trained, and without which the tasks of defending the nation could not be carried out. The professional mastery within these cadres, their high social and special training, will give them the possibility, when needed, to adopt more specific production processes for defense production.

Young people's high training will enable them in a short time to adapt to complex combat technology and successfully carry out defense tasks.

The 40 years which passed since the socialist revolution's victory fully affirm the ability and the capabilities of the Bulgarian Communist Party to resolve problems successfully in the areas of the nation's economic development, raising the people's living standard, and the defense of the homeland as well.

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CSO: 2200/70



## LARGE-SCALE LIVESTOCK BREEDING BY PRIVATE OWNERS CRITICIZED

Sofia IKONOMICHESKI ZHIVOT in Bulgarian 28 Nov 84 p 9

[Article by Stoyan Lilkov, attorney: "A Stop to Profit Appetites"]

[Text] Under the leadership of the party, state, and economic organizations, private economy and self-supply have noted a great growth in the nation in a short time, especially as a source of agricultural production. Private livestock breeding (as an extension of public breeding) has developed particularly well. It plays an important role in self-supply, for it provides a large part of its production to the needs of the commodity fund. But these positive tendencies in private livestock breeding can in no way conceal the nonsocialist facets of this development. During the last year in Plovdiv Okrug 358 farmers raised a large number of livestock. Of this number, 236 fattened more than 20 weaned lambs and goats each. Of these farmers, only 14 participated in social production, and 50 are retired. The remaining 199 did not participate in labor for socialized agriculture, such as, for example, Georgi Nachkov from Krichim, who raised 100 goats; Slavcho Krushkov of Khisar, who had 100 weaned lambs; Atanas Dzharov from the village of Krasново, who raised 400 weaned lambs; Dimitur Gaberov from the village of Tseretelovo, who raised 150 weaned lambs; Stoitsa Stoitsov, who raised 200, and Ivan Stoitsov, who raised 150, under an agreement with the Agroindustrial Complex in Smolyan.

Even more dangerous deviations are being observed in the raising of large cattle and pigs. At total of 95 farmers were occupied in this activity last year, 24 of which are retired people, and only 29 participated in social production. The remaining ones were busy only with raising a large number of cattle and pigs, such as Todor Tonchev from the Yoakim Gruevo district and Khristo Shilkov from the village of Tsaratsovo, who made an agreement with the combine for pig breeding in the village of Manole and raised 150 and 100 pigs, respectively; Rangel Sotirov from the village of Yagodovo made an agreement with an agricultural agency to raise 150 pigs; Toncho Tsarev from the same village and Vasil Ivanov from the village of Bolyarino made an agreement with the Agroindustrial Complex in Sadovo for 80 and 100 pigs, respectively. Many other cases of this type could also be pointed out.

And Nikola Danailov from Kalofer, by agreement with the Agroindustrial Complex in Karlovo, raised 60 head of cattle; Kosta Panaytov, 35 head of cattle and 10 horses; Raycho Raychev, from Rakovski, 20 heifers and calves; Stoyan and

Dimitur Kurtev, from the village of Radinovo, 30 buffaloes and cows each; Mekhmed Denichev from Krichim, 22 calves; and number of other farmers in this okrug.

After the discovery of these violations, the okrug and communal people's council and agroindustrial complexes took measures to deal with them. In accordance with Directive No 1490 of 4 October 1983, of the chairman of the executive committee of the Okrug People's Assembly, it was forbidden to make agreements with farmers who were not involved in socially useful labor. These limitations, however, are not motivated and are not directed toward applying labor to public agriculture, as are the requirements of Decree No 11 of the Council of Ministers, because they include agreements with agroindustrial complexes and public organizations in neighboring and distant okrugs. In this way, they will continue to raise a large number of cattle and pigs, and they will use all the privileges which they were offered by the decree, regardless of the fact that they violated the basic requirements. And this year Nan'o Nanev from the village of Chernichevo raised 20 head of cattle and 6 breeding pigs; Chavdar Chenev from Khisar, 30 pigs; Petko Neychev from the village of Panicheri, 30 pigs; Nikola Metodiev, 150 sheep; and many others, who raise more animals than determined by the agroindustrial complexes. According to the data of the communal people's councils and the city councils, the number of farmers who are independently raising many animals is significantly lower when compared to the number last year, and even this year 163 farmers are raising animals without contributing to socially useful labor.

These examples show that the ideas which are at the heart of decree No 11 of the Council of Ministers for the development and strengthening of private livestock breeding are being seriously violated by unscrupulous farmers. Now, under the conditions of building a developed socialist society, these attempts at coexistence with private property are a deviation and crime against the national property.

Someone could raise the objection to these conclusions that under the conditions of socialist society this is not possible. It is so. But we need strict control and a struggle against perversion of Decree No 11 of the Council of Ministers for the development of private livestock breeding as an extension and reserve for public breeding. No one should be permitted, no matter what the pretext, no matter who it is, to raise animals above the levels determined by the agroindustrial complexes and Scientific Production Combine. Experience up to now has shown that the deviations and violations noted have been encouraged by state organs and socialist organizations. Is it possible that the leadership of the agroindustrial complexes in Smolyan and Sadovo, of the Georgi Dimitrov Scientific Production Combine, of the Combine for Hybrid Pig Breeding in the village of Manole, in their aspiration to ensure raising the necessary number of animals in private agriculture, in order to fulfill the plan for their contribution to animal production, did not encourage these violations when they concluded agreements for 100 or more sheep and lambs or more than 100 pigs? In this way they actively cooperated with these farmers by supplying them with the necessary fodder, constructing buildings, etc., without taking into account the political trauma and degradation which these farmers would bring.

If serious measures are not taken for the liquidation of these nonsocialist phenomena, they will continue to hinder the development of socialist animal husbandry.

Some could object to these reflections by referring to the fact that at the current stage in the realization of the party's social program these phenomena are useful, they help in its fulfillment, because commodity production is generated for society. That they are generating commodity production no one can deny. But when this activity erodes and clouds their political world view and they begin to ignore social animal husbandry as the basic source of raising the population's living standard, but push it aside in favor of private agriculture, which could then turn into totally private agriculture, what happens then?! And the question of which direction the education of the workers should take, especially of the coming generation, is not without significance for the party and our socialist state. This is the sense and content of the objections which are raised by the development of private animal husbandry on such a scale and in such a way.

Some would object to the limitation measure taken by organs of state power and management, by "convincing" themselves and those around them of how much they loved animals and were close to them. Cannot this love for animals take place under the conditions of public farms? These negative phenomena and manifestations of unscrupulous farmers, who have let go of their ties to public agriculture and have directed their efforts toward private agriculture, can corrupt that which is greater and more useful when they offer the products of their private labor. This is a serious threat to socialized agriculture and must be liquidated while it is still in embryo.

This is why the authoritative state organs must create a normative act which would regulate the raising of animals above the levels set by the agroindustrial complexes and the Scientific Production Combine, so that they would be bought up at the expense of these farm organizations and that the proprietors would be remunerated by labor rewards according to the norms of the agroindustrial complexes for the labor involved and the expenses incurred.

It would be advisable in the future to forbid agroindustrial complexes, the Scientific Production Combine and other public organizations to exceed the maximum number of animals to be raised by private agriculture. By agreement, more family and group accords must be implemented in animal husbandry, as sheepherders, cattleherders, and pig raisers are permitted to raise their own animals in the public herds determined by the conditions of the agroindustrial complexes and the Scientific Production Combine. In this way, private and public interests will truly embody each other and they will carry out the idea which is at the heart of Decree No 11 of the Council of Ministers: that private agriculture become an extension of the social, which will train the agricultural workers to carry out the sacred dreams of the classics of Marxism-Leninism for building a socialist and a communist society in our nation.

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## APPLICATION OF ECONOMIC POLICIES IN SSR

Frankfurt FRANKFURTER ALLGEMEINE in German 5 Dec 84 p 12

[Text] "Bratislavske Elektrotechnicke Zavody" is a modern plant just a few kilometers outside the city in the South-Slovak Plain, on a wide highway, also surrounded by homes. The entire factory makes a strong impression and the managers reveal that there can be a plant spirit and a plant tradition also under socialist conditions. In three different divisions, the enterprise makes transformers, electrical turning and welding equipment, as well as distributors; it also has a school for apprentices. Along with 22 other plants, these divisions are part of a higher-level syndicate in the entire Czechoslovak heavy-current industry, with a total of 60,000 workers; 60 percent of the output are channeled to exports directly or indirectly and about 5 percent of that volume go to the West. Exports are essentially being handled in a centralized manner through the syndicate but there is also a small section in the plant which is concerned with the export questions.

We asked how the plant's interest in good results could be awakened and how it could be satisfied in material terms under the currently applicable Czechoslovak system of a planned economy. The answer was that the situation changed after the measures taken in 1981; on the basis of what they said we almost got the impression that the scope of what at that time were minor reforms in Czechoslovakia and their influence on production were somewhat under estimated in the West. At that time, the so-called "net output" was made the yardstick of economic success and also of plan fulfillment, in other words, production at prescribed prices minus the value of prior work, in practice, minus the supplier shipments, likewise at fixed prices. The enterprise's interest is thus guided toward turning out as much product of its own as possible with as little material as possible. Because the net output also contains wage payments, material savings are above all converted into wage funds and secondary social benefits and, likewise since 1981, a small fund for independent investments. Production above the plan, it was explained to us, is not as profitable as all that; besides, one would then have to look for a customer. The idea is not to produce any more items that simply will not move.

A walk through the transformer plant gives the impression of modern production methods but it also points up one of the main difficulties of Czechoslovak industry: excessive range of products. The managers confirm this impression immediately and without restriction. After the communist takeover, it was said in Prague, that Czechoslovakia, as the only old industrial country in the East Bloc, so to speak became the mass producer for the industrial needs of the other countries and it was impossible to get away from that situation to any essential degree. This is why Czechoslovakia is above all interested in more industrial specialization within the CEMA; this reportedly was the country's main endeavor at last year's CEMA summit meeting and it was the reason why Czechoslovakia, along with Romania, very early and very eagerly worked to make sure that the meeting would take place. Specialization--we were told in the Foreign Trade Ministry--however by no means implies a new flight from Western markets; on the contrary, if Czechoslovakia were to restrict its range of products, it could also make a better showing on the Western markets. We can see the consequences of the broad range of products in the factory: Manual labor still prevails in some important production processes.

The discussion with the managers became quite lively when questions of the economic system and reforms were raised. There was skepticism toward the reforms in neighboring Hungary. To be sure, we noticed immediately that--at least here, in open-minded Slovakia--ideological arguments by no means play the main role; instead, it is objective argument. We were told that it is for example doubtful whether the abolition of the so-called "middle structure," that is to say the syndicates and trusts, in which the individual enterprises are invented, would have a favorable effect. In that case, we were told, each enterprise would have to establish its own marketing, investment, and export divisions at great expense; but that could once again neutralize the economically favorable effect of enterprise independence. The Yugoslav example is discouraging enough.

We had heard a different argument in Prague. One must realize that, dating back to prewar times and crisis conditions, the "right to work" is so deeply rooted among the Czech labor movement and also among the population that a system, which would accept discharges of workers, would run into resistance not only from the officials but also from the population. Western observers commented somewhat maliciously that, under the Hungarian system, the people generally had to work harder; Hungary long ago ceased to be an egalitarian "people's home," such as Czechoslovakia would still like to be.

There is indeed something to the idea that economic reforms in Czechoslovakia are basically wanted neither by the top nor by the bottom. It is not just that the managers are often appointed more according to political rather than technical criteria. In Slovakia, by the way, the situation is better in this respect; we at any rate did not get the impression that the enterprise managers, with whom we talked in the electric power plant in Pressburg [Bratislava], were not competent in their occupations. But it seems to be a fact that, looking at Czechoslovakia in general, they are not looking for innovations in the social sense and that it is not only the regime that is a

a party to this basic attitude. The more active individuals, who include people such as the managers of the enterprise we visited, instead seem to try to get the best out of what they have to work with.

Here there are obviously still some possibilities in Czechoslovakia. In agriculture, the cooperatives were able to hold on to the independence they were able to gain in 1968 and the fruits of that are slowly emerging. There are farmers' markets in all cities throughout the land, where both the cooperatives and their members can sell products privately--of course within a certain price frame fixed by the government. The entire supply situation has been made easier by these markets. But the consumer cooperatives are also pursuing their own activities; on the basis of special contracts with agricultural cooperatives, they are in a position to offer more and better things than others; but of course they also ask higher prices than the regular government shops. Cooperative property is not the same as government property in Czechoslovakia.

The idea of getting the best out of the existing possibilities also applies to the enterprise we visited. We were told that it is entirely possible today by means of clever rationalization measures to earn a higher enterprise income. That also means higher wages. Of course, they did admit that they still have to meet entirely too many plan targets; efforts to promote exports also benefit the enterprise only through a complicated system of co-efficients. "We have to meet almost 30 targets before we get a bonus and on top of all that we have to get home to the wife on the dot," commented one of the managers with the strong agreement of his colleagues.

5058

CSO: 2300/155

EXPANSION OF CHEMICAL INDUSTRY; METHODS, PRODUCTS DETAILED

East Berlin NEUES DEUTSCHLAND in German 3 Aug 84 p 3

/Article by Christa Pehlivanian: "Proven in the Arctic Circle and Also in the Hot Desert. Productive GDR Chemical Plant Construction Exports to 26 Countries"

/Text/ Whoever wishes to visualize the GDR chemical plant construction industry should first glance at the early pages of its history. This will inform him that in 1984 the USSR and the GDR reached an agreement on joint research projects and deliveries, that could run well beyond 1990. This deals with installations worth billions including new installations for oil well drilling in the depths of the ocean.

And it can also be ascertained that contracts for mutually beneficial cooperation in third world markets were concluded by the GDR Combine also with well-known companies in capitalistic industrial countries, thus, for example, with the Japanese Toyo Engineering Corp and the Austrian VOEST-Alpine.

Building Up Our Republic

Apparently, our chemical plant construction, which was not in existence the year our Republic was founded, is today recognized internationally. The center of this combine with 32,000 employees is its original plant in Grimma/Leipzig. Here 85 percent of the scientific and technical pool is concentrated along with the testing center, central robot construction, modern production lines.

As the "main witnesses" to the 35-year development of the chemical plant construction we met three well-versed experts in Grimma: General Director Gert Wohllebe, Process Technician Wolfgang Jahn, Chief Rigger Reinhard Myeyer--all workers' children--learned their trades as coppersmith and turner at the time of the founding of the Republic. Above all, it was necessary to establish an efficient chemical industry for the young Republic, that after wartime destruction and hard years after that needed a fundamental reconstruction. Reinhard Meyer belonged to those who hauled Schwedt, Schwarze pumps to Leuna for installation "in order to help give our land a strong chemical industry" as he expressed it.

With the passing of time something great took place. The growing strength of the chemical plant construction made greater exports possible from year to

year. If the sites of GDR chemical plants are marked today on the map of the USSR, a dense network would be found: 12 giant oil refineries, 33 petroleum processing plants for the preparation of high-pressure polyethylene as well as industrial alcohol, natural gas wells--tried in part in the Arctic Circle and in the Karakum Desert. The general director summarized "The annual export of the GDR chemical plant construction to the USSR rose from 10 million marks in 1950 to a multiple thereof. Large contracts and fraternal cooperation built the crucial foundation and at the same time the economic and technical margin to develop a modern chemical plant construction."

When the petroleum refineries were built for the USSR, Reinhard Meyer was asked if he didn't want to go along as the rigger. "I was ready. Had experience indeed but also considerations. We are dealing with installations with totally different dimensions, twice as large as usual." Ultimately, Reinhard Meyer lived with his family for several years and worked at the construction site at Lissichansk in the Ukraine. Years he would no longer wish to delete from his life, years of personal experience in integration, fruitful years.

#### One in Three Goes to University or Technical School

The GDR chemical plant construction today has a wide range of items that reaches from petroleum processing, the fiber industry, and microbiology, to pharmaceuticals, to effluent treatment, and coal liquefaction. Right in this case the principle of the socialist economic strategy applies: through new technologies and new products to greater efficiency. "In accordance with this understanding since 1976 we invested time in production at the main plant at about one-third," remarked the general director. Licenses were sold to 20 countries, to 26 we export.

The educational politics of socialism is involved significantly in this operation. Every third worker in chemical plant construction today is a graduate of a university or a technical school, not just a few of the two. "As a young lathe hand back in the 1950's I was sent to a technical school. Later I earned the degree of engineer in process technology. As a worker all the portals of education were open to me," related Wolfgang Jahn. For more than 10 years he is in charge of the main section of the pilot plants with the testing center at its core. Many processes are tried out here for the first time under computer direction: recently, for example, a method for vacuum distillation by which petroleum is fractionated at boiling points lower than before and thereby more safely and more thoroughly. Well-known firms, among which some in Japan and in the United States, obtained the license.

Today new, fascinating projects determine the workday of Wolfgang Jahn--with the intent of the further intensification of chemical industry in the GDR. "The Seventh Central Committee Conference of the SED confirmed very emphatically that we must include to a greater extent domestic raw materials and also their derivatives. Accordingly, a tremendous amount of mass production is expected from our chemical plant construction. Materials conversions of completely new types are now being tried," he explained. Chief Rigger Reinhard, a coal miner by apprenticeship, gives his support to Wolfgang Jahn in this matter.



### Microelectronics Gaining More and More

This new country puts great emphasis above all on technical preparation. In the next 2 years, for example, the projected capacity must be doubled. For this reason, in a new building in Leipzig 2,000 designers of highly-modern technology are combined under one roof till the Republic's birthday. Microelectronics is making more and more of a gain. The number of projects existing in computer dialog will multiply rapidly. "And even that will be just the beginning," is how General Director Gert Wohllebe, candidate of the Central Committee of the SED, National Award Winner, recently described the future development.

Many of the chemical plant workers of tomorrow and after tomorrow are at this time still apprentices in Grimma, right now 500. Certainly many of them will remain here. Life is good in Grimma. From the new residential district, which stretches out from behind the extensive plant grounds, a view of the beautiful Mulde Valley can be seen. And South Grimma, as the quarter is called, continues to grow....

12446

CSO: 2300/146

## GERMAN DEMOCRATIC REPUBLIC

### NEW INDUSTRIAL BY-PRODUCTS, SECONDARY RAW MATERIALS EXPLOITED

#### Recycling Problems Solved

Magdeburg VOLKSSTIMME in German 16 Oct 84 p 2

[Text] Ninety to 95 million tons of residuary products, including roughly 7.3 million tons of conventional secondary raw materials are yielded annually in the GDR. The Deputy Minister of Materials Management, Helmut Schmidt, reported that work on developing these raw material sources is aimed at recycling approximately 30 million tons of the by-products in 1985. Those industrial and agricultural waste products not yet usable at the present time constituted as a potential reserve of raw materials the subject of analytical-conceptual work oriented toward the preparation of the necessary scientific-technical measures for their control and recycling in the long term.

Helmut Schmidt reported that the state plan for science and technology in the GDR comprised 100 to 130 tasks annually for a more comprehensive utilization of by-products. An approximately identical number of topics will be included in the plans for science and technology of the combines. Scientists have developed solutions for the reprocessing of mixed and contaminated thermoplastic residuary products and for the recovery of mercury from films and fixing baths, the extraction of iron concentrate from the ash of power plants, precious metals from scrap, and tin from dump sands. The national economy has obtained for some time now valuable raw materials through the chemical conversion of magnesium chloride lye yielded in the production of potash into magnesium oxide. Sodium sulfate is obtained from the spin baths used in the manufacture of viscose fiber, while manganese sulfate is extracted from manganiferous sludge.

A number of important residuary products not yet reusable at this time due to processing difficulties arrive on monodeposits where they are stored until the respective solutions for their use have been developed and the necessary processing plants been built. This applies for instance, to the red mud yielded in the production of alum earth, the bleaching clay used in the oil and margarine industry, as well as old asphalt.

Among the raw material reserves, which, according to the statement of the minister, have to be used more than previously, are used solvents, galvanic mud, acids, lyes, greasy sludge, boring emulsions, used antifreeze-water mixtures and wood residue.

#### Precious Metals Recovered

East Berlin BERLINER ZEITUNG in German 26 Sep 84 p 3

[Text] Secondary raw materials meet presently about 12 percent of the raw material requirements of the GDR. A few days before the 35th anniversary another step was undertaken towards the reprocessing of high-quality old materials. Last Friday, a plant for the recovery of precious metals from electronic scrap started operations in Hoppegarten.

Obsolete measuring instruments, used-up transmitting and receiving units, industrial switches, contactors and relays are stacked up in containers. All of them contain precious metal, although only a few grams and of gold only milligrams. In the past, this small volume of constituents was frequently lost because the enterprises did not deliver scrap metal containing precious metal separately. Besides, the recovery was connected with a lot of manual work.

At the Berlin VEB metal Processing, this work was performed in past years by students of the Technological University Merseburg, among others, during their summer vacation. Twenty men dismantled in one shift barely 5 tons, while the new automatic facility does it in 1 hour.

In a few seconds everything is smashed to bits.

The scrap is transported on a conveyor belt to the so-called hammer mill where the old equipment is smashed to smithereens within a few seconds by hammers which, fastened to a rotor, rain down 750 times a minute. What remains after that is on the average not larger than 10 cm.

This reduced material is then transported by conveyor to a magnetic separator where the first sorting takes place. The metal parts are attracted by two rotating magnetic drums and guided afterwards into a box especially provided for this purpose. On the average 50 to 60 percent of the electronic scrap is steel, about 10 percent copper, and 15 percent aluminum. The remainder are nonmetallic constituents, such as ceramic and plastic material, as well as paper. Silver and gold, which are primarily sought, are present only in minimum quantities. It is reckoned that 1 ton of scrap containing precious metal contains at most 450 grams of silver and 14 grams of gold. And in the future it will be rather less than more of it.

"Although the scientific-technical progress brings about the use of many high-value electrotechnical and electronic products, the share of precious metals in the individual products themselves decreases at the same time," says Gerhard Hurop, Deputy Director for Research and Development in the Combine Metal Processing, Halle. "Accordingly, it will become ever more

complicated to extract them from the scrap pile." One more reason for the researchers of the combine working in the Herzbergstrasse in Berlin, to create the prerequisites for an efficient recovery.

Patents confirm high technical level.

The solutions found conform to the international level. This is not only confirmed by two patents but also by the interest of foreign firms shown at the Leipzig Autumn Fair where the combine offered the license for the process.

The deputy research director emphasizes especially the so-called sink-float facility where aluminum, glass, and ceramic materials are separated from the reduced scrap. What remains is a concentrate of copper and precious metal which can be recovered in the Mansfeld Combine according to known processes.

The sink-float installation had been developed within a shortened period by the youth research collective of the combine. And Metal Processing puts its trust in the youth also in the future. At the start of production last Friday, the Director General Gerd Dietrich handed over the plant as a youth object.

#### Industrial Ash Exploited

East Berlin NEUE ZEIT in German 9 Oct 84 p 6

[Text] Power plant ashes have proven their worth as an economically and chemically favorable medium for the subterranean treatment of acids and ferrous groundwater in brown coal open cuts. This water can be conditioned subsequently at relatively low cost as drinking and industrial water. Respective studies were conducted by students and young scientists of the Hydrosience Section, as well as industrial experts in the joint research group "Open Cut Drainage" of the BKK Senftenberg and the Technical University Dresden.

The results--for which a patent application has been filed--were already confirmed by minitests. At present, a joint youth research collective is preparing a large-scale test for the coming year, to be followed by the final introduction in the field. During stripping in open cuts major quantities of the minerals marcasite and pyrite are exposed and are weathering in combination with the oxygen of the air through chemical and biochemical processes. The products formed in the process lead to a high content of iron, sulfate and acid in the groundwater which rises again, thus constituting an environmental load.

As a result of bringing power plant ash into the overburden dump, the weathering processes in the marcasite and pyrite are considerably delayed. The sulphuric acid forming in the process is neutralized by the alkaline action of the ash and the iron stemming from the weathering is separated in the dump material as a compound with low solubility.

NEW ATOMIC ENERGY LAW CLARIFIED, INTERPRETED AS EXEMPLARY

East Berlin KERNENERGIE in German No 10, Oct 84 pp 407-412

[Article by F.W. Krueger, GDR State Office for Atomic Security and Radiation Protection, Berlin: "The New Atomic Energy Law of the German Democratic Republic"]

[Text] On 8 December 1983, the GDR People's Chamber enacted the "Law on the Use of Atomic Energy and Protection against its Dangers." The text of this law is here presented and explained.

(F20,000) INIS DESCRIPTORS:

Atomic energy law: M1; German Democratic Republic: Q1; radiation protection; nuclear energy, nuclear liability; hazards; licensing regulations; standardized terminology.

1. Introduction

On 8 December 1983, the GDR People's Chamber enacted the "Law on the Use of Atomic Energy and Protection against its Dangers--Atomic Energy Law," (1) to take effect on 1 February 1984. At the same time the "Law on the Use of Atomic Energy in the GDR of 28 March 1982" (2) was rescinded. With some amendments(3,4), this had represented the legal basis for the development of nuclear energy in the GDR for 20 years.

The revision of the atomic energy law proceeded in the result of the evaluation of the experiences gathered in this long period of time. It also needed to take account of developments that had occurred in the meantime, such as international obligations arising from the treaty on the nonproliferation of nuclear weapons, new arrangements with regard to competences and more accurate scientific terminologies. It took more than 3 years of effort to carry out the necessary preparations and coordinations. The draft was discussed by a committee composed of representatives of central state organs, bezirk councils and the Academy of Sciences, and it was coordinated with more than 40 central organs, the FDGB Federal Executive Board and all bezirk councils.(5)

The text of the new law will be presented and explained on the basis of the perceptions gained in the course of preparation. The explanations may be considered a first commentary designed to illuminate the bases and objectives of various statements and requirements of this law.

## 2. Range of Application (Article 1)

The factual range of application of the law is drawn wide enough to cover all those kinds of use of nuclear and radiation energy and tasks to be carried out for the purpose of protection,, which need to be legally regulated in the interest of society or the individual. The assigned state organs must issue all further legal or state regulations required on the basis of the law.

The list of nuclear energy uses is not confined to the use of nuclear plant and the handling of radioactive substances. It also includes the use of radiation facilities, involving, for example, the use of X-ray installations. Consequently the regulations needed for this "classic" application of ionizing radiation are given the same legal basis as those governing the more recent types of utilization, for instance radiation and irradiation equipment using radioactive substances as the sources of radiation. Also within the factual range of application are research and development work with respect to all fields of nuclear energy utilization. This means that, in addition to the economic-technical objectives, research and development must be directed to the disclosure of potential hazards in the transfer of the results to the factory floor and the development of the necessary protective measures.

Protection against the hazards in the application of atomic energy incorporates all the measures necessary and suitable to avoid individual or social damage that might arise in view of the particular features of such equipment. This applies first of all to protection against the possible biological effects of the ionizing radiation generated by the application of nuclear energy, in other words radiation protection. Also included are safeguards for nuclear safety, that is measures appropriate for preventing accidents and breakdowns in nuclear plants, which might have radiological effects. Finally protection against hazards also includes measures designed to prevent or make more difficult any misuse of atomic energy (for example for non-peaceful or criminal purposes), such as checks on nuclear materials or physical protection. The appendix to the law lists the terminologies for the various areas of protection. I will later deal in greater detail with the system of terminologies of the atomic energy law.

Consonant with the comprehensive nature of the law, private citizens are listed in addition to state organs and enterprises with regard to the personal range of application, because in some instances (for example the operation of a radiation installation for personal purposes) a private citizen may be an atomic energy user. On the other hand, the effects of measures for protection against hazards in the application of atomic energy may also extend to the private citizen.

### 3. Principles (Article 2)

The new atomic energy law, too, affirms that the GDR uses nuclear energy for peaceful purposes only, and that neither the application nor trade and cooperation with other countries may assist the proliferation of nuclear weapons. At the same time no distinction is made with respect to the type of trade or cooperation, so that even those activities are banned, which--like the transfer of the special nuclear equipment and technologies listed in (6)--may contribute indirectly to the proliferation of nuclear weapons.

The provisions of the law directed to the exclusively peaceful use of atomic energy are distinguished from comparable regulations (especially in capitalist states) by their total lack of ambiguity. This applies even to those capitalist states which are signatories of the treaty on the nonproliferation of nuclear weapons. The FRG atomic law, for example, explicitly states as its only objective "the prevention of any hazard to the internal or external security of the FRG by the application or liberation of nuclear energy." (7) Nowhere is there a provision banning use for nonpeaceful purposes.

In addition to exclusively peaceful use, other principles of the law require the application of nuclear energy to proceed for the benefit of the socialist society, and for the protection of the life and health of man as well as the protection of the environment to be guaranteed and enjoy priority over economic and other benefits generated by the use of nuclear energy. When introducing the law in the People's Chamber, State Secretary Professor Sitzlack said, "The conditions of use reflect the concern of our state for the preservation of peace, life and healthy living conditions." (5)

There is an absolute social interest in reliably preventing faulty or wrongly directed applications of atomic energy. Infringements of the requirements of radiation protection or nuclear safety might cause considerable dangers to working people, the general public or the environment. Moreover, misuse may also generate political conflicts. State control by licensing and supervision, required as per other articles of the law, represents an important measure for guaranteeing safe use. Safety in the use of nuclear energy is also served by the state trade monopoly for nuclear plant, radiation installations and radioactive substances, the exclusive public ownership of nuclear plants and nuclear materials as well as the duty to account for stocks of radioactive materials.

The development of nuclear energy in the GDR has always had the active backing of the USSR. Let us recall the establishment of the Central Institute for Nuclear Research of the Academy of Sciences in Rossendorf. The USSR supplied the vital equipment for this institute, such as the research reactor and the cyclotron. (8) Let us also remember the fact that the construction of all nuclear power plants in the GDR proceeded in accordance with Soviet plans, and that the main plant was imported from the USSR. (9) Cooperation with the CEMA member countries will be even more important in all further developments. Agreements and provisions on specialization and cooperation of production and on the delivery of equipment for nuclear power plants are a key factor in current CEMA work. (10) The Atomic Energy Law therefore calls for close

cooperation with the USSR and the other states of the socialist community joined in CEMA in the field of the peaceful use of nuclear energy.

Other principles of GDR atomic energy policy affirmed in the law are its equal and mutually beneficial cooperation with other states and active involvement in the respective international organizations, specially the International Atomic Energy Organization (IAEA). The safety checks carried out by the IAEA are an essential element of the treaty on the nonproliferation of nuclear weapons. In addition the IAEA exerts a good deal of influence on the worldwide standardization of norms in the field of nuclear safety (11) and radiation production (12). By the organization of exchanges of scientific experiences at conferences and symposiums and, not least, by the International Nuclear Information System INIS (13), it assists the development of atomic energy in its member countries. With respect to many kinds of atomic energy use, the GDR orients to the import of plant and international scientific-technical and economic cooperation. The IAEA operations mentioned are of particular value in this regard and justify the emphasis in the atomic energy law on this special United Nations organization competent for all nuclear issues.

#### 4. Responsibility (Article 3)

Responsibility for the application of atomic energy and protection against its hazards is assigned the various state and economic management levels, in accordance with an appropriate scale. The Council of Ministers must guarantee central management and planning; it decides basic issues. The managers of enterprises using nuclear plant or radiation installations or handling radioactive substances are ultimately responsible for guaranteeing the observance and supervision of legal provisions and enterprise regulations. They are also responsible for the use of nuclear energy and protection against the dangers involved in the enterprises they head. The law emphasizes in particular that the managers of enterprises planning, designing or producing equipment, processes and places of work for the use of atomic energy, must ensure the necessary protective efforts with regard to their products.

This settlement of responsibilities more clearly than before shows that the introductory phase of the use of nuclear energy is completed. This phase required demonstrations of the advantages as well as adequate protection and safety measures of state encouragement by special state organs. Atomic energy use is now fully included in the normal social production and reproduction process. It proceeds to the extent required and beneficial for the accomplishment of economic tasks or the satisfaction of other social needs. The person charged with the accomplishment of the respective task is responsible both for the necessary promotional measures involved in the development of the technologies and methods for the use of atomic energy and for guaranteeing nuclear safety and radiation protection for all operations.

#### 5. Protection against Hazards in the Use of Atomic Energy (Articles 4, 5)

The atomic energy law requires protection to be provided on the basis of the latest scientific knowledge coupled with the observance of international



obligations and taking into account the recommendations of competent international organizations.

Protection is to be ensured by technical and organizational measures. Qualified, fit and appropriate personnel is to be employed, with adequate knowledge of the measures to be adopted for protection against the hazards of use of atomic energy. It is necessary, therefore, in addition to fitness to evaluate the skills, knowledge and suitability of the working people, and this requires the comprehensive assessment of all personal features with respect to the work to be done.

Depending on the amount of radiation to be expected, working people must be medically and dosimetrically checked.

Checks on the nuclear materials and physical protection of nuclear materials and plant must counter any misuse--including attempts at non-peaceful use--of atomic energy.

The requirements on the protection of the life and health of man and the environment and on protection against misuse of atomic energy are spelled out in the atomic energy law in general terms only. They are the basis of several additional and detailed legal regulations. To be specially mentioned in this connection is the radiation protection decree (14) and the first implementing regulation to the radiation protection decree (15), the orders on medical or dosimetric checks of persons exposed to radiation (16, 17), the nuclear power plant licensing order (18), the order on checks on nuclear materials (19) and the order on the physical protection of nuclear materials and nuclear plant (20). A survey of all relevant legal regulations and directives is provided in (21).

#### 6. Control Organ (Article 6)

State control by licensing and supervision required in the principles for the use of atomic energy is assigned the State Office for Atomic Safety and Radiation Protection (SAAS). Controls extend to all types of protection against hazards in the use of atomic energy. Of course this special state control does not release either other state organs or enterprises from the duty to carry out their own checks on the satisfaction of the requirements for protection against the hazards of the use of atomic energy in their respective spheres of responsibility.

The SAAS is the specific technical organ of the Council of Ministers with regard to protection against hazards in the use of atomic energy. Consonant with its statute, it is not competent for promoting use.(22) Its subordination to the Council of Ministers guarantees the greatest possible authority of decisions conforming with total societal interests. That is an important prerequisite for complying with the principle that protection against nuclear hazards has priority by comparison with economic or other benefits generated by the use of atomic energy. Assignment of supervisory functions to the SAAS also continues the tried and tested practice of checks being carried out by a state organ which is not competent for promoting

nuclear energy use. This separation between responsibility for promotion and responsibility for supervision responds both to international recommendations in this field (23) and to an internationally discernible trend. In July 1983, for example, the USSR set up a State All-Union Committee for Controlling the Safety of Work in Nuclear Energy as a special supervisory organ. (24,25)

#### 7. Permission and Licensing (Articles 7, 8)

Permission and licensing are important aids for the state supervision of the safe use of atomic energy. Permission and licensing are a matter for the SAAS. Permission is granted when the person responsible for the use of nuclear energy supplies evidence of the observance of the atomic energy law. Of particular importance in this context are the prerequisites regarding the personnel, safe working tools, operational procedures and work places, the security of radioactive substances with respect to unauthorized access and the safe removal of radioactive waste. These prerequisites for the issue of permits are therefore explicitly stated in the atomic energy law.

The atomic energy law allows for different procedures for the issue of permits, depending on the type of use. This should be interpreted in the sense that a more elaborate procedure should be used for complicated types of use, providing for the thorough testing of all protective equipment and measures and including constant checks on their reliability and efficiency. Simpler and less costly methods for issuing permits may be used for uncomplicated applications with low protection requirements. It will thus be possible to achieve a reasonable ratio between the costs necessarily incurred by the user and the supervisory organ and the protective effect achievable by the permit procedure.

The permit is an essential basis for the safe use of atomic energy. The atomic energy law therefore also requires that the terms for use are stated in the permit. It also allows for the permit to be conditional on the fulfillment of quotas or to be limited in time. A permit may, moreover, be withdrawn, amended or limited if the prerequisites for its issue no longer exist, the conditions imposed are not observed or quotas not met. The law thereby supplies the supervisory organ with a selection of aids to enforce the requirements of nuclear safety and radiation protection. Experience has shown that the use of these means--adapted to the respective circumstances--is very effective, largely makes superfluous the use of administrative, let alone criminal penalties and can be so flexible as to keep to a minimum the restrictions possibly required with regard to the operation of plant or installations.

Licensing is closely connected with the permit. Licensing is required for the production and import of radiation installations, enclosed sources of radiation, radioactive drugs and items serving to guarantee radiation protection and nuclear safety. The procedure for the licensing of products is to be considered a special kind of quality assurance. It is designed to guarantee that only such products are manufactured and traded, which safeguard radiation protection and nuclear safety. Licensing is a prerequisite for the issue of the simplified types of permits for the use of such products.

The law provides that products may be exempted from the need of a license if no hazards can possibly arise for the working people, all other citizens or the environment. This would be the case, for example, if the normally used procedures for quality assurance are adequate to guarantee radiation protection and nuclear safety. A special license is also superfluous if the permit procedure for a specific type of atomic energy use includes in the checks to be carried out the quality assurance program for the equipment required.

#### 8. The Establishment of Protective Regions (Article 9)

The law permits the establishment of protective regions for protective measures required for the operation of nuclear plant. Protective regions may be subdivided into protective zones with different conditions for and restrictions on use. To safeguard the conditions and restrictions on use, the investment customer or legal entity of the nuclear plant may request concessions with regard to co-user rights, the transfer of ownership rights or a change in legal entities with regard to real property, buildings and plant.

The establishment of protective regions may sometimes result in distressing interference in existing rights and habits of state organs, enterprises or private citizens. The atomic energy law therefore devotes special attention to these issues and recommends contractual agreements to all concerned. Only if no agreement can be reached are the necessary measures to be imposed by resolution of the kreis council. In every case damages as well as compensation for adverse economic effects will be paid.

An implementing regulation (26) settles other details with regard to the establishment of protective regions, in particular relating to the procedure and the text of the protective region declaration, the enforcement of stipulated conditions and restrictions on use, the setting up of a protective region committee with advisory and recommending functions and the equalization of adverse effects generated.

#### 9. Liability for Damage (Article 10)

Liability for damage arising from the use of atomic energy (formerly liability for radiation damage) is very important in atomic energy legislation in all countries. The respective provisions in the new atomic energy law could be kept relatively brief while preserving generosity. The GDR civil and labor codes (27,28) already offer far reaching general provisions on liability, and the atomic energy law falls back on these. A special feature with regard to the use of atomic energy is the provision that no exemption is admissible from the obligation to compensate for damages arising from the effects of ionizing radiation, and that claims for compensation are not subject to the statute of limitations. This latter provision is designed to take account of the sometimes very long period of time between the infliction of radiation damage and its showing up. The new atomic energy law does not affect the existing special regulations on liability for damage with respect to the operation of

radiological installations and damage to patients as the consequence of medical treatment by ionizing radiation.

#### 10. Fines and Penalties (Articles 11, 12, 13)

Crimes by infringements of the atomic energy law are exceptional. With a view to the potential dimensions of the consequences involved, it is imperative carefully to regulate their prosecution and punishment. The relevant provisions therefore occupy a relatively large space in the atomic energy law. This is needed to adequately differentiate the extent of the penalties depending on the type of infringement, the seriousness of the offense and its consequences. Table 1 provides a survey of the penalty provisions. If the effects of the actions listed in the table and the offender's blame are insignificant, a reprimand or fine may be enough. Reprimands or fines may also be imposed for less serious infringements such as the employment of insufficiently qualified, unfit or unsuitable workers, the removal or cancellation of prerequisites for the issue of the permit, the manufacture or import of products subject to licensing without a license, or offenses against the measures ordered in connection with the establishment of protective regions.

Table 1--Survey of the Penalty Provisions of the Atomic Energy Law

Offense <sup>1)</sup>	Kind of Commission	Consequences of the Action	Manner of Causing the Consequences	Penalties
Use of nuclear plant or handling nuclear material or other radioactive materials without permit or nonobservance of quotas issued with permit;	deliberately	danger to the public	deliberately	prison up to 5 yrs <sup>2)</sup>
Trade in nuclear plant or radioactive materials outside the state monopoly;	negligently	considerable damage to health or death of a person	negligently <sup>3)</sup>	fine, probation, prison up to 2 yrs
Infringement, impediment or obstruction of professional duties for nuclear materials control or physical protection of nuclear materials	negligently	considerable damage to health	negligently	prison up to 8 yrs
		death of a person	negligently	fine, probation, prison up to 1 yr; in serious cases (recklessness) prison up to 5 yrs
				fine, probation, prison up to 2 yrs in serious cases (recklessness) prison up to 5 yrs
				probation, prison up to 2 yrs; in serious cases

and nuclear plant

(a) recklessness  
or b) death of  
several persons)  
prison up to 5 or  
8 years

- 
- 1) Reprimands or fines are possible if the effects or blame are insignificant.
  - 2) Even preparation or the attempt are punishable.
  - 3) To deliberately cause such consequences is punishable as murder or manslaughter.
- 

#### 11. Terminologies (Appendix to the Law)

The unambiguity and clarity of the terms used are quite decisive for the unambiguity and clarity of a law. The terminology used in the atomic energy law therefore requires particular attention. The terms used in earlier legal regulations could not be employed again in all cases. Supplemental and more precise definitions were inevitable. In the following I will deal in greater detail with some changes and special features, although of course not all questions arising with regard to terminology can be handled exhaustively.

As in earlier legal regulations, the term nuclear plants includes plants which, for various reasons, require special social attention. Usually they hold a large inventory of radioactive substances and are for that and other reasons the sources of greater hazards to the personnel and the environment. Major financial and material investments are needed for their construction. The plants are consequently very valuable and designed to facilitate smooth flowing operations for a long time. At the same time much of the work--both with regard to operations and changes or reconstructions--can be carried out only in conditions which are difficult by the effects of ionizing radiation or the potential incorporation of radioactive substances.

By speaking of the deployment of nuclear plants, a term was coined, that embraces all work with nuclear plants--including operation consonant with the purpose of the deployment and the activities needed to prepare for operations and shut-down. Also to be counted with the operations consonant with the purpose of deployment are regularly recurring operations that need to be carried out for the maintenance of production and are allowed under the terms of the permit. In the case of nuclear power plants this would encompass, for example, fuel reloading and maintenance work as per enterprise regulations--such as function checks, inspections and servicing. Preparations for operation include all activities requiring special permission before or during operation. In addition to the selection of the location, construction and beginning of operations--representing separate stages in the permit procedure as per the nuclear plant permit order (18)--this also means repairs, reconstructions and other changes subject to confirmation during permanent operation.

Radiation installations are installations that used to be somewhat clumsily described as "installations emitting ionizing radiation." Analogous to the

terminology adopted with regard to nuclear plants, the term deployment of radiation facilities was chosen to describe radiation installations. In contrast to nuclear plants, maintenance work is not normally an element in the operations permit but a task handled by specialized enterprises which have a special permit for such work. Consequently, maintenance work with regard to radiation facilities is classified with the work involved in the preparation of operations.

The definition of radioactive material and nuclear material as special radioactive material requires more precise definition by minimum quantities and/or concentrations; such definitions will be provided by subsequent regulations. This procedure offers an opportunity for adapting the definition of the radioactive substance of nuclear material to the relevant circumstances. In addition to the physical features of radionuclides and chemical compounds in which they occur, various types of handling may also be taken into account. For example, radioactive substances may be radioactive material, material contaminated by radioactivity or radioactive wastes with respectively differing minimum quantities and/or concentrations.(29) Similarly, different minimum quantities and/or concentrations may also be set for classification as nuclear material with respect to measures of nuclear materials controls or physical protection.

Handling of radioactive substances includes the many operations needed for the use of radioactive substances in industry, farming, medicine, science and technology as well as other sectors, but also "other activities involving the presence of radioactive substances." To be understood by this term are all operations which involve the presence of radioactive substances as an inevitable albeit undesirable side effect. This applies to, among others, underground operations affected by radon or radon byproducts (mines, subterranean cavities) or operations in enterprises where, due to special regional features, radioactive substances may occur.

The terms used for the special protection and safety requirements in the use of atomic energy were defined consonant with the principles of GDR standard TGL 30 001(30) on basic terms for health and safety at work as well as for fire safety. The terminology for radiation protection was taken over completely, and physical protection--consonant with other protection definitions by the TGL 30 001--represents the total of requirements, measures, means and methods directed to a set objective to be protected, in this case to, among others, the prevention of criminal attacks and unauthorized interference with nuclear material and nuclear plants. Nuclear safety, too, is defined--analogous with other safety terms of the TGL 30 001--as a state and feature of a nuclear plant. At the same time an important expansion took place by comparison with the feature already extensively discussed in an earlier proposal (31), that--upon the occurrence of disruptions to be taken into account--no inadmissible radiation should affect the operating personnel or persons in the vicinity. The state of nuclear safety is also characterized by the fact that, given appropriate operation, such deviations from normal operation are reliably avoided, which result in inadmissible doses of radiation. This expansion orients to the production and maintenance of such

plant features as quality and reliability of the equipment and operational safety of the systems so as to prevent the occurrence of dangerous breakdowns.

Finally the term of atomic security, used in earlier legal regulations without proper explanation, is now defined as the unity of nuclear safety and measures for the prevention of the misuse of atomic energy.

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CSO: 2300/156

FUTURE NUCLEAR ENERGY SOURCES EVALUATED

Berlin KERNENERGIE in English No 10, Oct 84 pp 419-422

[Article by G. Flach, H. Ullmann and R. Rockstroh, Academy of Sciences of the GDR, Central Institute for Nuclear Research, Rossendorf: "Evaluation of Various Types of Nuclear Energy Sources Under the Conditions of the GDR"; paper prepared for IIASA's International Energy Workshop, Laxenburg, Austria, 14-16 June 1983]

[Text] The path to guarantee a long-term sustainable energy basis in the German Democratic Republic is the orientation towards

- 1) an extensive use of all possibilities of rational production and application of energy,
- 2) An increasing application of the native lignite up to the full exploitation of its economic potential with simultaneously decreasing imports of rather valuable fuel materials,
- 3) the growing application of nuclear energy as an important part in the substitution chain of the primary energy carriers.

Nuclear energy is dedicated to releasing in due time sufficient amounts of fossile energy carriers for refinement and application as raw materials in chemistry and metallurgy. Nuclear energy is characterized by long preparation times and high investment costs. Therefore, extensive investigations must be made for the economically effective introduction of nuclear energy in the required pace to determine an optimal choice of reactor types used. These investigations have to take into consideration the the following conditions:

- 1) the required development of final energy to its amount and structure, especially electric energy and heat,

- 2) the limited values of the investment potential of the country, and the problems of site selection,
- 3) the date at which a reactor type is available as an industrial one,
- 4) the guarantee of a long-term nuclear fuel supply.

An evaluation of the various types of nuclear stations related to their integration into an energetic and economic system of the conditions mentioned above has been discussed. The need for restriction to a limited number of types within a limited territory is shown.

#### 1. Marginal Conditions of the Introduction of Nuclear Energy Into the Economic System

The GDR is a country which possesses significant resources of lignite, which meet more than two thirds of the primary energy requirements.

The GDR has very limited resources of natural gas and doesn't possess any oil. The possibilities of the application of regenerative energy resources are very limited. The lignite has to be exploited with increasing expenses.

The approach to ensure a long-term sustainable energy basis in the GDR is directed towards an increasing application of the native lignite up to the full exploitation of its economic potential with simultaneously decreasing imports of rather valuable fossile fuel materials and towards an extensive use of all possibilities of rational production and application of energy. The growing application of nuclear energy takes a key position in the substitution chain of the primary energy carriers. Nuclear energy is dedicated to releasing in due time sufficient amounts of fossile energy carriers for both refinement, application as raw materials in chemistry or metallurgy and to meeting the growth of primary energy. Taking into consideration the R and D potential and the existing structure of the GDR industry such a complex problem like the development of nuclear power is only to be solved in a close cooperation with the CMEA (Comecon) member countries, especially with the USSR.

The CMEA member countries have worked out a joint strategy of the development of nuclear power [1]. As in other CMEA countries in the GDR remarkable rates of growth in nuclear energy have been decided on (Table 1). The part of the installed electric power represented by nuclear power stations in 1980 in the GDR already amounts to 9 percent, the part of the produced electric energy even amounts to 12 percent.

The tendency of the growing part of nuclear power will be continued in the future [2].

Table 1. Electric Power Installed in Nuclear Power Stations in Some CMEA Countries and Their Rate of Growth up to 1985 (after [3])

Country	Power, in MW(e) (in parentheses: percent of the total power)		
	1975	1980	1985
PR Bulgaria	880 (12.5)	1320 (16)	2800
PR Hungary	0	0	880
GDR	950 (5.5)	1830 (9)	2270
SR Romania	0	0	700
USSR	5520 (2.5)	14,000 (5.3)	38,000...39,000
CSSR	150 (1.1)	880 (5.3)	3520

Large-scale investigations are required for the introduction of nuclear power with an optimum economic effect and with the required speed. These investigations have to observe the following marginal conditions:

- 1) the required development of final energy to its amount and structure, especially electric energy and heat,
- 2) the limited value of the investment potential of the country, and the problems of site selection,
- 3) the time at which a new reactor type is available as an industrial one,
- 4) the guarantee of a long-term nuclear fuel supply.

In the following we will deal in more detail with some of these conditions.

## 2. The Demand of Different Forms of Final Energy and Possibilities of Meeting It by Nuclear Energy

Nuclear power plants have to make available final energy of the kind required by economy and society. In developed industrial countries of our geographical latitudes about a quarter of the whole primary energy is consumed for the production of electric energy. This percentage will further increase in the future. As much as half the primary energy is consumed for the production of heat up to a temperature of 200°C for process or house heating. The residual quarter of primary energy meets the demands of high-temperature heat, of liquid fuel etc. (Fig. 1).

Within a first period nuclear energy opens the field of electric energy production by nuclear power plants. The substitution of fossile fuels by nuclear energy accelerates the application of electric energy for some technologies, such as transport and high-temperature heating processes. A second period of nuclear energy characterized by the application of low-temperature heat supply from nuclear power plants is in preparation. By making available this kind of final energy the largest field of the primary energy consumption can be opened up. A nuclear power unit with a pressurized water reactor of 1000 MW electric power under full application of heat tapping

can deliver up to 1000 MW thermal power (or 1000 MJ/s). But this heat has to be transmitted over a distance of some ten kilometers to the centre of population or industry. This requires an improvement of the heat transfer technologies and the enlargement of central heat-supply systems. Moreover, nuclear heat-generating stations with water-cooled reactors like the AST-500 (500 MW(th)) are under development in the USSR [1]. They are independent of cooling water and characterized by increased safety. Therefore they can be placed near-by population centres.

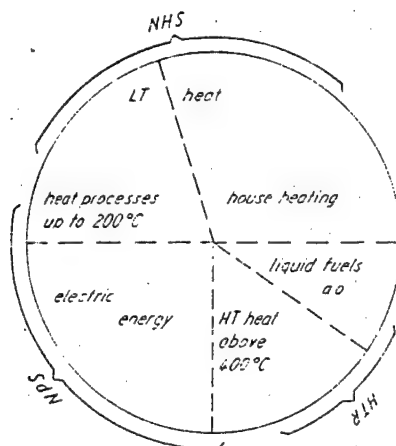


Fig. 1. Portions of primary energy for the production of several forms of final energy

Fast breeder reactors will generate electricity. They also afford the possibility to deliver steam. For the production of process heat at a temperature of 900 to 1000°C as required for basic processes of coal gasification of liquefaction high-temperature reactors must be developed.

The characteristics of various types of final energy produced by nuclear stations are shown in Table 2.

Table 2. Characteristics of the Energy Produced by Nuclear Plants Within the CMEA Countries

<u>Type of reactor</u>	<u>Final energy</u>	<u>Power on one site</u>	<u>Expected realization in industrial scale</u>
PWR power station	electric energy hot water, 200°C steam, 250°C	up to 4000 MW(e) up to 1200 MJ/s	in operation in preparation
Nuclear heat generating station	hot water, 180°C	500 MJ/s	USSR: 1985

Type of reactor	Final energy	Power on one site	Expected realization in industrial scale
Sodium cooled fast breeder reactor	electric energy hot water, 200°C steam up to 540°C	800...1500 MW(e)	USSR: 1990...2000
High-temperature reactor	electric energy process heat 900...1000°C	1000 MW(e)	not before 2010

### 3. The Time of the Development and the Date of Availability of Several Types of Nuclear Reactors

Commonly the nuclear reactors have to pass through the following stages of development:

- 1) basic research,
- 2) scientific demonstration of energy production,
- 3) technological demonstration,
- 4) economic demonstration,
- 5) industrial type of power plants.

The temporal course of the several stages of development is steady, without jumps, as is typical of large industrial developments (Fig. 2) [5].

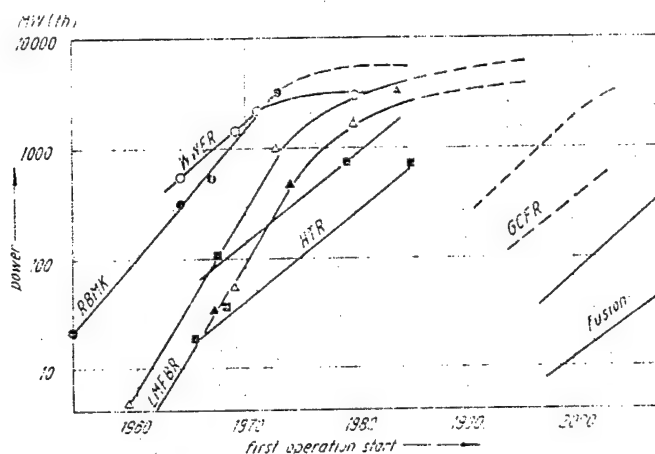


Fig. 2. Years of first start-up of units of different sizes of several types of reactors

Δ Na-cooled LMFBR in USSR; ▲ Na-cooled LMFBR in France; ■ HTR in USA, FRG

Usually more than one decade elapses between the putting into operation of a new type of nuclear power plant and its serial application, due to the operation experiences required and high expenses of the production and erection of

the plants. In this way some decades pass until a new energy source like the nuclear energy becomes efficient within the total balance of primary energy [6].

PWRs were developed in the USSR up to the serial type WWER-1000, which is intended for large-scale application in the CMEA member countries [1]. Its predecessor was the WWER-440 type reactor. This type is characterized by satisfactory parameters. The net efficiency amounts to 32 percent. The average burn-up of the PWR types at present reaches 33,000 and in future projects will reach 40,000 MW d/t uranium. The PWR-type reactors also dispose of a remarkable potential of improvement of their characteristics [7]. The thermal output may be increased by construction changes of the reactor core. The investment costs may be decreased by simplifying the construction of the components. The fuel utilization can be improved and fuel costs can be lowered by optimization of the reloading regimes of the fuel assemblies. The development of systems for incore-control techniques, of technical equipment diagnosis and material testing in combination with other measures will further improve the safety and reliability of the plants. The arrangement of the PWR reactors for their application in a load-change regime would be of great interest.

The heat supply was already demonstrated on a small scale at several types of reactors. To reduce the economic expense caused by heat transport, water cooled nuclear heat generating stations are under development.

Improved safety by reduced pressure and temperature of the heat carrier, by application of natural convection in the primary circuit, and by passive measures such as additional containment and three-loop scheme allows them to be located near the consumer centres. First nuclear heat-generating stations will start their operation in the USSR in 1984/85 [1].

Because of the problem of a long-term nuclear fuel supply the application of fast reactors will become of interest. Sodium cooled fast reactors have been operated in the USSR for years. The Beloyarsk BN-600 represents the basis for the development of industrial types BN-800 and BN-1600 [8]. The breeder reactor BN-600 after the design characteristics reaches an efficiency of 38 percent, a breeding factor of 1.37 and a maximum burn-up of 100,000 MW d/t uranium. The intention of the development-work on a high-temperature reactor in the USSR is a reactor which generates process heat of a temperature of 900 to 1000°C for metallurgical or chemical application [9].

The co-operation of the GDR in the improvement of PWR-type reactors is concentrated on neutron-physical and heat-technical calculations of reactors, optimization of the water chemical regime, development of decontamination technologies for components and for complete circuits of PWRs, development of techniques and equipment for confectioning, transport and final storage of radioactive wastes. The investigation in the direction of development of fast reactors deals with calculation methods and special physical and chemical methods of measurements for sodium circuits. The main goal of this work is the improvement of the reliability and safety and of the economy of nuclear power plants. Additionally, the GDR takes part in the improvement of

technologies of projecting, erection and start-up of nuclear power stations [2, 3, 4].

#### 4. Selection of Types of Nuclear Stations for Introduction in the GDR

Type selection of nuclear stations in a smaller country is not only a question of availability and the supply of definite types and of the portions and forms of final energy but also a problem of economic erection with the required rate of growth in total power. This is a limiting factor as to the number of types erected in one country. It is economically more effective to build some reactors of one type in series on one site, than to have more sites or more types.

This is an optimum way from the view-point of scientific and technical experiences and of the building and assembling techniques.

Since the erection of the nuclear power station at Rheinsberg in 1966 and the putting into operation four reactors of 440 MW electric output in Greifswald in the seventies the GDR has gathered much experience in the operation of PWR-type reactors. During the eighties the erection of reactors of the type WWER-1000 will be the general line of the development of nuclear energy in the CMEA countries [1, 3].

In addition to the application of these types which generate mainly electric energy, it is required to prepare possibilities of nuclear heat supply in the form of heat tapping from PWR secondary circuits and of nuclear heat generating stations.

A complex problem of optimization is the site selection of the nuclear power stations in a country of limited territory. The problem is characterized by the required safeguard distances, the limited resources of cooling water, the position of the centres of energy demand, the extension of electrical and heat transfer systems and others.

#### 5. The Long-Term Guarantee of the Nuclear Fuel Supply

The operation of nuclear energy system on the basis of thermal reactors would exhaust the fissile materials which may be exploited economically. This international realization first of all leads to the necessity of a better fuel utilization in thermal reactors. Investigation in the GDR in co-operation with other CMEA countries deals with this problem. But measures of this kind can only postpone for a short stage the period of exhaustion of natural fissile resources.

Therefore, the large-scale introduction of fast breeder reactors continues to be a principal question of nuclear energy [10], in our opinion also for small countries. A precondition for the utilization of the benefits of the FBR is the application of a closed nuclear fuel cycle. Its realization is both a large scientific and technical and an international economic and administrative problem of the CMEA countries [3]. A reprocessing plant of economical size should have a capacity of 1500 t U/a, such a plant could



supply a nuclear power system of about 50 GW electric power. In connection with reprocessing the problems of transport of nuclear fuel, intermediate and final storage of highly radioactive products have to be solved.

The nuclear fusion could open a new source of nuclear fuel. At present, however, special economic stimuli for a forced development of fusion hybrid reactors or fusion reactors do not exist [10]. Many decades will elapse until their industrial application.

Received August 30, 1983

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CSO: 2020/34

## BRIEFS

INCREASED LIGNITE PRODUCTION--Bitterfeld (ADN). The coal miners of the Bitterfeld Lignite Combine wish to add to the planned production for this year more than 1 million tons of coal. The Board of the main plant reached this decision on Tuesday during their plenary session with Frank Bochow, member of the Presidium and secretary of the FDGB Executive Committee participating. With this goal lying significantly above the original obligation they increase their contribution to the steady supply to industry and to the populace as well as the stronger utilization of domestic coal. The starting point for the higher competitive goals, as General Director Helge Haeger assessed it, are the good results obtained in the first half year. In 1985 too the Bitterfeld lignite miners see setting their course for a greater increase in output. During the planning discussion 900 proposals and references were submitted so far in this matter. Thus, through the combined use of modern technology and further economizing the hourly productivity of the equipment is increased, and at the same time the work is made easier. It is desired in 1985 to reorganize more than 300 workplaces in the main plant of the combine. Frank Bochow indicated that the construction of the means of rationalization as the decisive basis for the high requirements of the lignite industry was proper. In the coming months above all it would be the main thing to achieve the contemplated pace for 1985 through new competitive initiatives. /Text/ /East Berlin NEUES DEUTSCHLAND in German 1 Aug 84 p 2/ 12446

MINERAL RESERVES STATUS--Our Republic is the third largest potash producer in the world and produces every 8th ton of this valuable mineral fertilizer. Since 1893 mining has been in progress in the "Glueckauf" /"Good Luck"/ mine in Sondershausen where the management of the People's Potash Combine of the GDR also has its residence. In order to utilize even better domestic raw materials the potash miners brought to realization a splendid thought: with the mining of mixed salt the mine is considered to have economic reserves through the year 2000. In the early 1980's the technical conditions for this were established. Mixed salt, in contrast to the originally and exclusively mined pure salt is richer in accompanying components, magnesium chloride and bromine. Accordingly, a highly-concentrated brine rich in magnesium chloride is produced in a newly-erected factory in Sondershausen by means of evaporation apparatus. At the same time bromine is obtained in good purity. The enriched brine is the starting material for the production of magnesium oxide powder, which is converted mainly into sintered magnesite, a fire resistant material for lining metallurgical furnaces. /Text/ /East Berlin NEUES DEUTSCHLAND in German 19 Jul 84 p 3/ 12446

COAL TRANSPORT FACILITIES--Koenigs Wusterhausen (ADN). The largest port for the transshipment of crude lignite in the Republic is being erected at present in the neighborhood of Koenigs Wusterhausen. Workers of the Berlin Heavy Construction Combine and other firms create the conditions for the doubling soon of the present capacity of the port of 4,500 tons daily of transshipped coal and construction materials. In the future groups of four barges would be loaded at the same time and sail down the approximately 30 km long waterway to the Berlin-Rummelsburg power plant. At the same time a storage depot is being built for 200,000 tons of crude lignite being shipped in from the Senftenberg region. Two modern truck-dumping installations and a movable crane will provide in the future for a rapid unloading operation. The extensive construction will be completed at the end of 1986. Up to this point in time the railway installations are also being extended and equipped so that they can be traversed by electric locomotives. At present the channel between Koenigs Wusterhausen and Rummelsburg is being improved. Narrow points and bends are being corrected so that barge trains up to and including four barges can reach the power plant unhindered. /Text/ /Magdeburg VOLKSSTIMME in German 2 Aug 84 p 2/ 12446

CSO: 2300/146

ESTABLISHMENT, FUNCTIONING OF MIXED ENTERPRISES REVIEWED

Budapest FIGYELO in Hungarian No 44, 1 Nov 84 pp 1, 6

[Article by Ivan Wiesel: "Mixed Enterprises, Better Than Good"]

[Excerpt] The capital stock of the mixed enterprises registered at the end of 1983 came to about 1 1/2 billion forints, which by and large is divided in equal ratio between the Hungarian and foreign ownerships associations. For more than 10 years now the possibility has existed for foreign economic associations to establish mixed enterprises in Hungary under their name in current use. Most of the presently functioning mixed enterprises, however, were formed in recent years since the executive instructions to the basic decree appeared. The advantages that can be achieved by the introduction of foreign capital are the following: easing of a capital shortage, a rise in the technical level, expansion of the market network, and the manufacture of exportable products--all of these are possibilities which under the more difficult foreign market and domestic economic conditions should be better exploited.

Most of the 33 mixed enterprises--or exactly 18--which have been registered or licensed are performing some kind of producer, production or construction industry activity. The profile of the other mixed enterprises embraces the most varied areas of services and trade.

Different Rules

In preparing for cooperation with a foreign partner, we must above all weigh whether the task set forth by the domestic economic unit can be solved most successfully in a cooperation or mixed enterprise framework.

As compared to cooperation, the mixed enterprise is closer, more permanent, and based on greater mutual (proprietary) risk undertaking. Its establishment is justified, therefore, if the participating enterprises judge that their common economic interests will be long lasting, and to take advantage of this the best solution is an association based on capital consolidation and risk sharing. Often cooperation serves as a good basis for moving toward the mixed enterprises that signify closer relations, helps clarify mutual interests and promotes better mutual familiarity.

The mixed enterprises form provides greater guarantees than cooperation contracts for the competitiveness and good quality of jointly manufactured products, for the partner participates in the production as a proprietary owner. Also, we should not belittle the fact that the foreign partner's well developed sales network can be utilized for sales on capitalist markets.

It is much simpler, in any event, to organize and license cooperation relations than to establish mixed enterprises. Also, the dissolution of these relations is administratively less difficult and maybe accompanied by smaller material losses than would be the case with the dissolution of an enterprise.

On the other hand, it is disadvantageous that the machinery and equipment necessary for production can be imported only within the framework of customary import licensing. Moreover, the initial financial burdens for the Hungarian partner are much greater because the forint value of the machinery purchased is attached from the development fund of the Hungarian enterprise involved. This does not bear interest, and is released only gradually in accordance with the export ratio designed for amortization. Moreover, duties must be paid on the import of the machinery.

These disadvantages can be avoided only if the foreign partner is willing to purchase the machinery and transfer it in the framework of a lease contract. Under the mixed enterprise form, if the foreign partner provides the necessary machinery and equipment as capital contribution this counts as a foreign-exchange free import. In this way, it does not have to be licensed and at the same time it is not subject to custom duties.

If the imported machinery and equipment come into the possession of a Hungarian enterprise (whether it is a Hungarian cooperation partner or a newly created mixed enterprise) their import is subject to tariff payments. In both cases, permission may be requested for a 36-month, interest-free installment payment subsidy. No differentiation is made in this regard between the cooperation and the tariff-area mixed enterprise. Understandably, on the other hand, the establishment and operation of custom-free area associations are free from all these problems.

Obviously, it also has to be studied whether the scope of the planned activity will provide a profit cover for costs deriving from the establishment and operation of the independent enterprise organization.

In selecting the association form most appropriate to the goals, the founders of the association take responsibility on themselves to operate according to instructions for the given organizational form. The goal, the nature of the activity, and the association form that is selected influence in a combined way the magnitude of the capital necessary for operation and the mode of capital assurance.

#### Legal Forms

Hungarian economic organizations and foreign enterprises or legal entities can establish economic associations in the following forms: unlimited

partnership, limited partnership, share company, limited liability company, and joint enterprise.

The pertinent decrees do not differentiate whether the foreign partner is from a capitalist or socialist country. In this sense, Hungarian legal regulation is neutral. (Of the more than 20 Mixed enterprises which have been formed thus far, however, all are with capitalist partners.)

Thus far all the registered mixed enterprises, with the exception of two share companies, have been in the limited liability association form. Up to now no unlimited partnerships or joint enterprises have been established, presumably because of the unlimited liability responsibility of the members for debts of the association. Also, those forms have proved acceptable to foreign partners which are internationally known and are regulated in detail. According to Hungarian legal instructions the share company has the legal right to conduct any kind of economic activity without limitation. On the other hand, the KFT [limited liability company] law expressly forbids limited liability companies to conduct bank and money-exchange transactions, bond issues and other related activities.

It is easier to establish a limited liability company, the organization is simpler and more flexible than that of the share company. The association of the members is much closer, the possibilities to undertake responsibility and to have a voice are more extensive than in a share company.

The most important difference between the share company and the KFT is that in the latter the responsibility of the members can be extended to contributions of property beyond capital stock deliveries and to various supplementary services. The members, for example, can come with supplementary contributions to help an embattled association. Here a way exists, therefore, to add to obligations, while the members of share companies are responsible for the debts of the association only up to the resources of the registered share company.

On the basis of domestic and international experiences we can say that the KFT is an association form more appropriate to the needs of undertakings with fewer members. The share company is more appropriate to activities and needs where there is a large capital base and there are many members.

Table. Registered Mixed Enterprises in Hungary  
end of 1983

Enterprise	Year founded	Foreign owner	Hungarian	Activity
Sicontact KFT	1972	Siemens Ag, FRG	Electromodul, Remix, Inter- cooperation Ltd	Planning, training, servicing electric and electronic equipment
Radelcor KFT	1973	Corning Corp, USA	Radelkis Metrimpex	Manufacture and develop- ment of equipment
Volcom KFT	1973	Volvo Interna- tional Develop- ment Corp, Sweden	Csepel Auto Factory, Mogurt	Laplander autos, modified profile: Volvo rep- sentation
Central Euro- pean Interna- tional Bank Ltd	1980	Banca Commer- ciale Italianae, Italy Bayerische Vereinsbank, FRG Creditanstalt Bank- verein, Austria The Long Term Credit Bank of Japan Societe General, France The Taiyo Kobe Bank Ltd, Kobe, Japan	Hungarian National Bank	Bank activity
Budapest Gaming Casino	1980	Osterreichische Spielbanken AG, Austria	Danubius	Operation of gaming casino
BCR-Lilly KFT	1980	Ely Lilly SA, Switzerland	BCR Works	Veterinary product production, services only
B + Z KFT	1980	Zyma SA, Switzerland	Medimpex Biogal	Pharmaceu- tical basic material production

Enterprise	Year founded	Foreign owner	Hungarian	Activity
Sphero-Evig KFT	1981	Laing et Co, Switzerland AG fur Standard Motoren GmbH und Co, Fertigungs KG West-Berlin, Magnetpumpenent- wicklungs GmbH, FRG	EVIG, Inter- cooperation, CIB	Production of heat pumps
Skala-Luescher International KFT	1982	Luescher Auto- maten Ag, Switzerland	Skala-Coop	Operation of slot machines
Qualiplastic KFT	1982	ALM Corp USA	Pemu Interag	Regeneration of plastic waste
Econoservice KFT	1982	Horisont AG, Switzerland	Sigma Ltd	Financial advice, office management service
Metritechnik KFT	1982	FESTO GmbH, Austria	Metrimpex CIB	Organization of service, cooperation
Zalaform KFT	1982	Neue Mode Pannonia GmbH, FRG	Csertementi Mgtsz	Production of clothing
Monopharma KFT	1983	Medipharm AB, Sweden	Monori AG, Pharmatrade	Production of Lactiferm M 74
Skala-Arab Trade Development KFT	1983	Saudi Caravan Transport Estab- lishment, Saudi Arabia	Skala-Coop, Hungarian Inter- national Bank, London	Trade service
SG 2 Hongrie KFT	1983	Societe General, France	Hungarian for- eign Trade Bank, Ltd	Computer technology service
Cargopack Hungaria KFT	1983	Cargopack, FRG	Volanpack	Packaging activity, service



Enterprise	Year Founded	Foreign owner	Hungarian	Activity
Danube-Main Construction and Trade KFT	1983	Deuma GmbH,	General Service and Marketing Coop, Techno-impex	Construction industry activity
CM Diebold Hungarian KFT	1983	Diebold Deutschland GmbH, FRG	Comporgan, Metrimpex	Organization, consulting
Tungsram-Schreder Illumination Technology, Ltd	1983	Schreder AS, Belgium	Tungsram, MAT	Manufacture of illuminants
Olympos KFT	1983	K. Arvanitis SA, Greece	Kecskemet-Szikrai AG, AGKER kft, Hungarofruct	Fruit processing
Hungarofeder Feather Processing KFT	1983	V. Bauer Feather Bed Factory, Austria	Hungarotex, Makoi Lenin Mgtasz	Poultry feather cleaning, processing
OTP-Penta Tours KFT	1983	Penta Tours Reisen GmbH, Austria	OTP [National Savings Bank]	Travel bureau

#### Sources of Mistrust

Lack of confidence is with domestic and foreign sources one of the important limitations to the establishment of joint international undertakings.

The enterprises regard national differences in government measures and regulations as one of the most important foreign limitations. (For example, differences in the conditions for acquiring property, the taxation system, different possibilities for profit transfer and so forth.) The establishment of joint undertakings is made more difficult if double taxation cannot be eliminated, if an agreement is lacking between the two countries that would terminate it. A special problem is the currency and the conditions under which the co-owners can take it out from the site of the joint enterprise.

The operation of joint enterprises is also influenced by export-import limits, which frequently cannot be announced beforehand and thus represent a serious entrepreneurial risk.

Problems can be caused by the monetary policy of the base country, defining the possibilities of acquiring credit and its costs. Generally, "inexpensive money" attracts, "expensive money" repels. The incalculable nature of changes in monetary means is also an element of risk. Similar effects, in practice, are also evoked by various instructions for price regulation.

The legal system and the regulation of the country where the operation is located also influences accessibility to the market. In this area the sources of mistrust are: dividend policy, protection of competing products, and various preferences which only the local enterprises may gain.

Finally, foreign exchange policy belongs among the foreign factors of mistrust, particularly exchange-rate policy, that is, upward and downward evaluations in the base country. As a consequence of this, profitability changes automatically.

Market risk and lack of confidence factors:

- lack of stability in the availability of manpower,
- presumed difficulties in material supply,
- uneven deliveries,
- fluctuations in demand,
- unfavorable developments in supply discipline.

The above list does not include all those factors in the easing of elimination of mistrust for which assurances must be given to foreigners participating in a joint undertaking. We must also know that the best assurance is to be found not in legal provisions, but in references that can be given by enterprises already operating in the country.

The source of internal conflict arises when the partners do not, in practice interpret the contract in the same way. This causes particular problems if the signers and implementers of the contract are not the same persons. For example, the governments of the developing countries seek to use the establishment of joint enterprises primarily to acquire capital, create employment possibilities, and acquire technological knowledge. The enterprises of the developed capitalist countries seek primarily to attain new markets, lower costs, and a broader profile. Without a compromise coordination of these two differing modes of approach the joint undertaking cannot be long lasting. The participants should try when the goals are set to create common interests in the longterm development of benefits. Lack of confidence frequently derives from the fact that there is insufficient communication among the participants, and the flow of information is slow. It may also cause difficulties when the labor, the professional and organizational techniques, the planning style and the capability of adapting to modern technology differ from the relations that have developed in the other country.

Despite the above-listed problems, joint undertakings are constantly expanding in international work distribution. Participants are now ready

to establish joint enterprises on basic preliminary studies, existing cooperations, and agent relationships.

Managers of joint enterprises are invested with a broad-scale independence, and in this way the founders do not keep to themselves the right to make operational decisions.

It must be precisely fixed where the mixed enterprise will express its activity, in the market circle, consumption area and the management organization (supervisory committee, strategic committee and so forth). It must be established what kind of marketing activity the joint enterprise will conduct and what kind of help the founders will give this activity.

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CSO: 2500/105

## NEW DOMESTIC TRADE MINISTER DISCUSSES PROBLEMS

Warsaw MERKURY in Polish No 7, 1984 pp 3, 8

[Interview with Anna Kedzierska, minister of domestic trade, by Tadeusz Przyk]

[Text] [Question] The 40th anniversary of People's Poland provides an opportunity for comparisons and evaluations of our achievements in various spheres of life in our country, including such important ones as trade and, broadly understood, services. What would you, Mrs Minister, consider to be the most important achievements in these spheres? At the same time what, in your opinion, are the most essential problems of commerce and services which have not been fully resolved in the past period?

[Answer] A full answer to a question thus posed, or rather to a number of questions, would require from me a presentation of a developed program of action of the ministry for the next few years. You understand that this is not possible in such a short conversation. It is also a little too early for that. The ministry is currently working very intensely on the assumptions of the NPSG [National Socio-Economic Plan] draft for the years 1986-1990, and this plan, after its confirmation by the Sejm, will constitute the developed program of action which concretely answers your questions.

Thus I shall answer some of your questions anticipating the future solutions of the plan, which, as you know, will be the result and synthesis of a profound analysis of our output, the undoubted achievements as well as failures of our commerce, the current social and economic conditions of our national economy, the output of the scientific base and practical experiences, and above all, a result of a broad social consultation. However, please consider my answer as preliminary thoughts or even impressions rather than a binding opinion.

Let us begin with the output of commerce in the past 40-year period. I think, considering the point of departure, that the output is enormous. Most of all, we built our socialized commerce from foundations, practically from zero. Today we have a developed network of retail stores and food outlets, places not only in the cities but also in the countryside, providing access to goods for the whole population. It is true that our index of the density of commerce network is still lower than in more developed socialist and capitalist

countries. When, however, we compare our point of departure, or even the range of possessions between our country and other countries 40 years ago, the difference changes visibly in our favor. And there are, after all, completely modern objects in our commercial network, which stand comparison with the best models of our neighbors. I have in mind here some state and cooperative department stores, large self-service supermarkets, and above all, pavillions of rural commerce in the countryside, which have basically changed rural residents' conditions for shopping.

It is true that all this is still far from what we would like to have, and in the past few years there has even been a certain regression in development as well as in the appearance and supplies of our commercial network. Nevertheless, we need not be ashamed of our output in this sphere, and our compatriots who visit their homeland after many years express admiration for the great transformations in the commercial network, among other things. Only those who do not want to see it, or incurable dreamers, who in a year would like to jump decades, and in decades--centuries of economic development, do not see this.

The second problem, perhaps even more important, is our own skilled cadre of salespeople and commerce organizers. There are already over a million of us in Poland, employees of socialized commerce and services; we are conscious of our tasks and duties, equipped with professional learning and skills, and we like and respect our profession. We are a seasoned cadre and in the overwhelming majority not only dedicated, but even ready for sacrifices, as proved by the attitude of most commerce employees during the recent period of social tensions, for example. And after all, employment in commerce had no native models or traditions. Today we have a developed system of education and adaptation to the profession of school graduates, a modern system of work with cadres. It is a basic capital with which we can be tempted to solve favorably the tasks facing commerce in the near and more remote future.

You ask about unresolved questions. Of course, there are very many of them. Commerce and services are, after all--to put it briefly, work, consisting in meeting the material needs of society, and as we know, the process of the growth of needs is the most constant process of all. There will never be a situation in which we shall be able to say that we have achieved everything. Let us return to your question, however. It is known, after all, that the present state of meeting the population's needs is far removed not only from the ideal, but even from a decent level. People's lives are difficult. The conditions for buying foodstuffs and access to them today are more difficult than at any time in the past 40 years, with the exception, perhaps, of the years 1945-1946 and 1980-1983. This results above all from insufficient production and supply of consumer goods, and from the continuing imbalances in many segments of the market, which causes not only difficulties in access to goods, but also is the cause of many phenomena of social pathology, such as speculation, exploitation of market difficulties by some for the purposes of enrichment, a decline in the quality of goods produced and supplied to the market, and manifestations of sloppiness and slovenliness in various spheres of our life, including commerce and services.

The most immediate and important task for the whole national economy is a gradual restoration of the money-market balance. Therefore the administrative centers of domestic trade and services, together with trade enterprises and organizations will focus their attention on the realization of the government program of savings and anti-inflationary actions, particularly in the directions of increasing supplies to the market and improving their quality. We shall, therefore, strive to improve the principles of cooperation between the trade and industry, adapting them to the existing situation and using the instruments created by the economic reform. We shall strive to use better the instruments of government orders, for the purpose of meeting the basic needs in the best way and speed up the process of market balance, and we shall improve the current forms of influencing supplies and searching for new forms. At the same time we shall aim at a more effective steering of the goods we have at our disposal and to cooperate closely with the hosts of the area, i.e., the regional people's councils and the area centers of state administration, for the purpose of adjusting their distribution to the needs of particular regions and population groups. This is a difficult and long-range task. In the sphere of trade itself, we shall try to use the instruments of economic reform for the maximum stimulation of initiative and enterprise in trade enterprises in the direction of, above all, better use of both the accessible goods, and the material-technical base of trade in order to satisfy better the population's needs and to raise visibly the level of services. There is an enormous field for action here and it is enough to point out such fundamental areas as the system of incentives in trade, which ties earnings to real work results, and adjustment of the level of profit margins to the real cost-effectiveness of the turnovers and needs, and to the maintenance of the efficiency of the material-technical base and its development.

The problem of preventing the disinvestment of the commerce network, its equipment in machines and tools which facilitate the work of the personnel, and the modernization of service, while on the other hand assuring the maintenance of high quality goods, requires close attention.

[Question] The past 40 years, in which socialized trade developed and consolidated, were characterized by various changes in the organizational structure and profile of trade enterprises with regard to their activities. In this way the current system of the commercial service of society has been formed. Do you think, Mrs Minister, that in this system there ought to be introduced certain changes leading to the creation of stronger elements of competition, which would promote a better commercial service?

[Answer] A start in this direction has already been made. I have in mind here above all the resolution of the Council of Ministers, abolishing all legal barriers with regard to branch monopoly or territorial range of action of trade enterprises. Today there are no more legal obstacles preventing, in rural areas, the operation of stores other than those of the rural trade organization, and state enterprises selling foodstuffs or grocery coops--industrial goods. The statute on regional authorities and territorial self-government creates possibilities for creating territorial state trade and

industrial enterprises. We believe, however, that the process of organizational changes should not be imposed from above, but rather ought to be spontaneous and stem from actual needs. I also believe that the process of organizational changes in trade and the range of action of trade enterprises will be accelerated along with the regulation of the system of profit margins and incentives, which I have already mentioned.

[Question] The economic reform, particularly its first stage, in which the producers' particular, narrow interests became pronounced and efficient mechanisms of social control and the consciousness of social interest did not yet come into existence, created for trade enterprises difficulties unknown before. How do you, Mrs Minister, see the possibilities of overcoming the difficulties and improving the work of commerce, catering and services? Further, in the conditions of shortages and sometimes evident lack of some goods, the position of the producer has strengthened and the position of the intermediary, that is, the trade, weakened. As a result, too frequently the interests of the consumer are infringed upon. What actions does your ministry intend to undertake in order to overcome the aforementioned irregularities and to submit the genuine needs of the consumers to the producers continually better and more effectively?

[Answer] I believe that the answer to the first question also contains the answer to other questions. I see no way to assure an equal partnership between commerce and industry other than efforts directed to the restoration of the market balance and putting in order those elements of the economic-financial system in commerce which need it, and above all, the system of incentives in trade and the system of trade profit margins. I expect a lot also from the cooperation with area authorities in the new legal system, particularly from the possibilities of developing area production and from the strengthening of the control of these authorities. The concept of worker-peasant inspection according to the initiative of the 16th Plenum of the PZPR Central Committee also creates big hopes. I believe, however, that economic conditions are decisive in these problems, i.e., the restoration of the money-market balance as a condition of the functioning of the instruments and economic incentives and institutional solutions tying the work results of the crews of industrial and commerce enterprises to the actual production and quality results.

[Question] A relatively fast development of a network of various private and agent shops, and the like, is a new phenomenon in the sphere of commerce. While the activity of small stands selling fruit or vegetables does not raise major objections on the part of society, the activity of various boutiques, clothing and souvenir stores, stores selling household goods, and the like, frequently raises justified criticism. What actions can be taken in this regard in order to maintain the network of private shops as a filling for the socialized commerce network, and assure the proper directions and honesty of functioning of private initiative?

[Answer] I believe that the phenomena which you have brought up and which indeed take place cannot be generalized. After all, they are not the rule, but precisely are an exception from the rule. With regard to private "entrepreneurs" breaking our law and rules of social coexistence we are not helpless. With iron consequence we shall close down dishonest enterprises which do not fulfill their end of accepted obligations. At the same time we shall provide full protection for all those (and they constitute a considerable majority) who carry out their obligations according to social needs. The authorities of local self-government strengthened in their control function, and the actions of the worker-peasant inspectorate, will constitute an undoubted help for us in the realization of this line of conduct.

[Question] The monthly MERKURY in its present profile is a publication which performs, above all, the functions of an informative guide for commerce employees, particularly salespeople, and the overwhelming part of the circulation reaches their hands. We realize, however, that many problems discussed in our monthly could be of vivid interest to broad masses of consumers. How do you, Mrs Minister, in the light of your rich experience in the socialized activity in the consumer movement, evaluate the present formula of our publication and what profile changes would you suggest in its content and form, so that it could perform its tasks better not only with relation to the sales personnel, but also to consumers?

[Answer] Above all, I hope your publication maintains its profile and the high level it has reached. I do not wish to voice an opinion on changing the formula of your publication, which has, as is evident from your question, as its goal the noble, after all, purpose of increasing its influence on consumers. I would be very glad if you achieved that. It seems, however, that the matter still requires deep thought. The tasks your publication realizes as an informing guide for sales personnel are very important and always ought to constitute the basic part of the publication. Nevertheless, it is a good thing that you are thinking about broadening the subject matter. The materials you publish are equally interesting for both sides of the counter and will certainly reach broad masses of readers--something I wish you with all my heart.

[Question] What do you, Mrs Minister, wish the thousands of employees of commerce, food provisioning and services on the eve of the July Holiday, on the eve of the 40th anniversary of the birth of People's Poland?

[Answer] I wish the employees of commerce and their families health and all prosperity, as well as the greatest personal and professional successes, and above all, satisfaction from a well performed duty of serving our society.

Let their work contribute in the greatest degree to the full normalization of our domestic market and let it be a tangible step forward in the direction of improving the level and culture of servicing our society. Let their efforts bring fruit in the social recognition of their difficult and responsible work.

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CSO: 2600/294



## PROCEEDINGS OF HAVANA CEMA SUMMIT REVIEWED

Bucharest LUMEA in Romanian No 46, 8 Nov 84 pp 7-8

[Text] The recent session of the Council for Mutual Economic Assistance in Havana benefited from the stimulating climate generated by the economic summit conference in Moscow of the CEMA member states (June, 1984). The summit, through the documents approved and decisions adopted and through the guidelines and principles affirmed, brings mutually advantageous collaboration and cooperation to a new, higher level--both on the bilateral and multilateral planes--in the interest of strengthening the economies of the member states and enhancing the power and prestige of socialism in the world.

The RCP CC Political Executive Committee at its 5 November meeting considered that the Romanian delegation, in keeping with its mandate, worked to improve CEMA activities, to enhance the role of this organization in developing the economy of each member state and to strengthen the economic cooperation between them, based on the principles of full equality and mutually advantageous and equitable international cooperation. "We," comrade Nicolae Ceausescu pointed out in this regard, "believe that the improvement of cooperation within CEMA has a particularly important role in affirming socialist relationships as a model for new interactions between states, based on the principles of full equality and mutually advantageous equitable international cooperation.

The present state of international affairs--difficult and extremely complicated--and the phenomenon of the global economic crisis confer increased urgency on the activities of CEMA. Beginning with reality's complex data, with the problems that now confront the socialist countries, the present session of the council had the task--we feel--to identify concrete methods and solutions to strengthen and broaden economic exchanges and mutually advantageous cooperation between member states. Making the first assessment of the implementation of the decisions adopted at the economic summit and of the measures approved at the CEMA session in Moscow

in June 1984, the present session in Havana--as reflected in the communique published at its close--demonstrated how to apply the policy of making efficient and rational use of the productive and technical-scientific potential of all resources. It showed the way to achieve technical modernization of national economies, to improve their structure and to increase the quality of production. It was pointed out at the conference's full session, that economic and social progress achieved under the leadership of communist and workers' parties is closely tied to the strengthening of cooperation at numerous levels between the CEMA member states and to the greatest possible concentration of common efforts in the most important directions of cooperation. At the session, the participants examined the coordination of plans of the CEMA member states' national economies for the years 1986-1990. Complex long-term activities dealing with cooperation in energy, fuels and raw materials through 1990 and beyond were approved. Also, cooperative activities were proposed for machine construction in the extractive and energy fields as well as for the development of new technology and fuel and raw material processes. The session participants approved measures for continuing to improve the organization of multilateral cooperation within the CEMA framework, the legal system for cooperation, and the means and methods of work. The session also approved the creation of a CEMA committee for cooperation in machine construction.

Emphasizing that our country is determined to continue making its full contribution to the development and improvement of CEMA activities in the spirit of the recent understanding achieved at the economic summit at Moscow, Romania--the RCP CC Political Executive Committee noted at its recent session--will actively participate in the complex, long-term activities agreed to at the full session of the recent CEMA meeting. These are activities designed to develop cooperation in meeting the energy, fuel and raw material needs of the CEMA member states, to increase specialization and cooperation in production--particularly in high technology areas--to advance technical-scientific cooperation, to increase trade and to solve together problems of particular importance for the economic and social progress of every member state. Toward this end, the Political Executive Committee tasked the government, the ministries and other central organizations to take the necessary measures and to act with the utmost vigor to implement the adopted measures.

Romania views as positive the results achieved since the 37th session of the council and it has made particular efforts to reach new understandings for the development, in the present 5-year plan, of specialization and cooperation in production, in technical-scientific collaboration as well as in common efforts to construct certain economic undertakings. Comrade Constantin Dascalescu, prime minister of the Romanian government, pointed out in his speech, "Expressing our agreement to the need to press on to accelerate the process of renewing for the next 5-year plan the production specialization agreements which expire in 1985."

Reaffirming our country's unchanging, basic principles for its full participation in the world economic network, the Romanian government's prime minister drew attention to, among other things, our country's consistent efforts--within this framework--to increase its trade with CEMA member states. From this perspective, the volume of these commercial exchanges--both with the Soviet Union as well as with other member states--does not reflect the full potential of the national economies. Given this fact, it appears necessary--in our country's opinion--that during the coordination of plans, efforts should also continue to draw up long-term commercial accords to agree upon increased volumes of reciprocal deliveries.

Regarding the concrete cooperative ventures encompassed in the decisions of the economic summit as well as in other recent proposals, we reaffirmed our country's interest in participating in the activities agreed upon to put to use the natural resources that exist in the CEMA member states. These include project planning, geological prospecting, delivery of equipment and materials and the provision of the necessary labor force. In his speech, the prime minister of the Romanian government pointed out "It is essential for us now to carry out these activities, through agreements and long-term contracts, so that these projects can make their positive contributions even in the next 5-year plan, 1986-1990."

Our country believes that particular emphasis must be placed on solving together the problem of providing raw materials and fuels for all the CEMA member states--a fundamental objective in cooperation and specialization within CEMA and an objective emphasized at the economic summit in Moscow as well. A matter of concern for all council member states, it is one of particular importance for Romania. Certain data on this subject is particularly informative: Per capita energy consumption in Romania is far below the average consumption of the other member states. At the same time, Romania meets its needs in these products within the framework of reciprocal cooperation, at a much smaller percentage than is true for the other CEMA member states. Responding to the needs of modern development and to its own specific conditions, our country, as is well known, works tirelessly for the judicious and efficient use of its domestic resources and indeed, to take firm steps to systematically reduce consumption and to economize on the use of energy and raw materials. The draft directive that will be discussed and adopted at the upcoming party congress is revealing in this regard. Despite these efforts, Romania has not succeeded in meeting its fuel, energy and raw material needs from domestic sources. Declaring itself ready for the greatest possible participation in exploiting the energy resources and the raw materials in the CEMA member states which have these resources, especially in the Soviet Union, Romania believes that there should be a long-term general cooperation agreement in the area of fuels, energy and raw materials. Along these lines, Romania reaffirmed its availability to participate in the investment projects of countries on whose territories these sorts of projects are being constructed through cooperative efforts. In this same spirit, our country proposed that an agreement in

principle be reached whereby the deliveries of the output of these jointly constructed facilities be carried out over a long term, as a rule 15 to 20 years, on the basis of long-term contracts. This would create stability and the prospect for planning and cooperation in these respective areas.

Turning to the particularly important matters of specialization and cooperation in production--seen as some of the principal forms of participation in the international division of labor--Romania feels that despite the progress made in this regard, it should step up its participation in this modern form of cooperation. The intent is to substantially increase the volume of trade in specialized products--especially the high technology sectors of its economy--in accordance with the technical-economic capacities and potential of Romania and the other CEMA member states. There is a wide range of key areas where Romania has the industrial potential and the research capabilities to prepare the technology and produce products that meet world market standards. Our country is particularly interested in promoting specialization and cooperation both in the manufacture of finished products as well as of components, parts and subassemblies, based on long-term agreements. By promoting specialization and cooperation in production, progress can continue to be made in improving the export structure and increasing the percentage of finished and nearly-finished products.

The participants at the session also discussed the complex international situation in which the development of the CEMA member states is taking place which confirms the analysis contained in the declaration adopted at the economic summit conference. The participants at the CEMA session announced their readiness for real measures to stop the arms race, for disarmament and for dialog and serious negotiations. At the same time, they reaffirmed their resolve to work for the implementation of the action program adopted at the economic summit to place economic relations on a healthier basis by increasing cooperation with the developing countries and with all states, including those with capitalist economies, on the basis of mutual advantage, equal rights, nonintervention in internal affairs and respect for the international agreements to which they are parties.

The session was yet another opportunity for Romania to reaffirm, along with the other participants, its consistent policy favoring constructive dialog, negotiations for the resolution of mankind's great problems, a halt to the arms race, disarmament, especially nuclear disarmament, the eradication of underdevelopment and the creation of a new economic order, and peace and international cooperation.

Starting from President Nicolae Ceausescu's analysis that peace constitutes the primary concern of our era, Romania reaffirmed at the session its firm position for a halt to the deployment of American medium-range missiles in Western Europe and, at the same time, to stop the implementation of Soviet countermeasures in order to reach an agreement for completely eliminating

medium range nuclear missiles and then all nuclear weapons from Europe and the world. The consistent position favoring negotiated solutions over the imperialist policy of force and dictate, and in this context, aid to the popular liberation movements in Central America and the positive appreciation of the efforts of the Contadora group, were the courses of action our country reaffirmed on this occasion.

The socialist states are obliged--and this is the firm position of Romania and of President Nicolae Ceausescu--to be in the vanguard of the struggle for peace and disarmament, for the resumption and consolidation of detente and security, for cooperation and understanding among nations and for the creation of a more just and better world.

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.CSO: 2700/53

## DEVELOPMENT OF PRIVATE AGRICULTURAL SECTOR REVIEWED

Belgrade GLASNIK POLJOPRIVREDNE PROIZVODNJE, PRERADE I PLASMANA in Serbo-Croatian Oct 84 pp 32-37

[Article by Milan Zupancic: "The Composition of Private Farms in Yugoslavia"]

[Text] The private farm is the basic production and social unit of Yugoslav agriculture. As a form of economic activity in agriculture it dates back to precapitalist social formations, and even today it seems to be an important segment of agriculture, and in terms of the land it has, it is a dominant segment in production. Today the private farm holds 84 percent of the entire stock of arable land, about 90 percent of the livestock population and it has a share of approximately 73 percent in total agricultural output. The remainder of output comes from the socialized sector of agriculture.

It is well known that even the classics of Marxism have emphasized the inefficiency of the tiny peasant holding (which is what has been inherited and exists even today in Yugoslavia or, as Marx summarized it, "by its nature a holding divided into parcels precludes the development of social productive forces of labor, social forms of labor, social concentration of capital, large-scale animal husbandry, and the progressive application of the sciences"\*) and from the standpoint of the development of the productive forces of the socialist transformation of rural areas--the peasant holding is a historical anachronism. Its disintegration depends on society's overall development and its real capability of developing modern productive forces in agriculture by economic means which will make the peasant holding superfluous, but that is the aim of long-range development and the purpose of attaining a high level of productive forces of socialist society as a whole. The tiny holding and the peasant who farms small parcels will be an economic and social reality of our society for a long time yet.

The idea of extraeconomic and administrative socialization of peasant agriculture through nationalization and collectivization of peasant agriculture through nationalization and collectivization of the tiny peasant holdings was rejected in Yugoslavia, and the conception is rather to stimulate productive socialization of peasant production on the basis of economic motivation, gradualism, through various forms of cooperation and association between the small

\* K. Marx, "Kapital," Vol III, Zagreb, 1948, p 743.

farmers and the organizations in the socialized sector of agriculture. But that process is not the topic of this article.

#### Review of the Development of Peasant Agriculture in the Past and the Basic Social Commitments Concerning It

The attitude of the leading social forces toward the peasantry and the peasant question, which is a paramount issue in the theory and practice of Yugoslavia's socialist development, has essential importance to our topic. From the first days of socialist construction the LCY faced as the leading political force the question of how to solve the problems of agriculture and the peasantry. The development of agriculture on socialist foundations necessitated the creation of large-scale socialized production through development of socialized farms and socialization of production on tiny peasant farms through cooperation between the private and socialized sectors of agriculture.

This development strategy was neither easy nor simple. The unfavorable pattern of agriculture that was inherited, in which small-scale and predominantly subsistence farming and an economically and socially backward peasantry were dominant, represents a heavy burden along the way to creating and developing new socialist relations in rural areas.

Although the development of these relations has neither been uniformly steady nor rectilinear, one can still speak of the continuity of farm policy and continuity in the efforts and endeavors of the LCY to develop the productive forces and socialist relations in agriculture and in rural affairs.

We can grosso modo divide the entire development in the period of socialist transformation of relations in agriculture into four stages:

1. the stage of radical measures--the agrarian reform, collectivization (1945-1953);
2. the period of seeking new methods (1954-1958);
3. a) a period of intensive socialization and the spread of the socialized sector of agriculture (1959-1965);  
b) the development of cooperation and the bolstering of market forms of integration of the peasantry (1963-1974);
4. integration of the peasantry through formation of associations throughout the agroindustrial complex in the context of the relations of associated labor--since 1974.

The space of this article does not allow any very detailed elaboration of the various factors in the different stages of this process. For an understanding of the road traveled since rejection of the concept of the administrative type of the socialization of the peasantry (collectivization) after 1953 it is perhaps best to quote the well-known stand taken in the LCY Program, which was adopted in 1958, since it expresses in pregnant terms the fundamental views

toward the peasantry and peasant ownership of the means of production. That passage reads as follows:\*

"Considering that private landholdings in Yugoslavia are almost exclusively small or medium-sized, the League of Communists of Yugoslavia believes that the process of socialization of land will not develop by means of general nationalization or other similar means, but primarily through socialization of agricultural production based on ever stronger socialist productive forces in the economy and especially in agriculture, through gradual socialist transformation of rural areas, through unification by means of the cooperative movement and through the peasants' cooperation in agricultural production with the socialized sector. That cooperation is based above all on application of the means of modern large-scale agricultural production, which may only be social property.

"... following his own interest and the interest of the community and convincing himself by his own experience, the peasant himself should decide voluntarily on joining in socialist cooperation and large-scale agricultural production, which is the only way to pull him out of backwardness and poverty."

These views express the theoretical foundation and backbone of the long-range policy concerning the development of socialist relations in agriculture over the past 25 years.

In that period the landholdings of the socialized farms have expanded--there was a significant growth in 1965, whereupon it was considerably slower, but through production collaboration with the socialized sector the peasantry was increasing its output and improving its material and social standard of living. But in the sixties commercial approaches to the peasantry with the growth of economic "liberalism" created economic insecurity for the mass of peasants. Cooperation fell off and became of interest to the very small peasants because of credit financing, while the peasant who farmed on a larger scale went his own way, and social resources were often committed to unproductive consumption. The period of the late sixties and early seventies is known for contradictory processes in rural areas. That is why new and more effective ways of developing peasant agriculture and of linking it to organizations in the socialized sector are being sought.

The 10th LCY Congress, held in 1974, is especially important in this regard; in its resolution it emphasized the need for more intensive development of agriculture on the private holding through /more lasting/ [in italics] linkage with the socialized sector or through the joining of agricultural cooperatives and other forms of self-management integration of the peasantry. This was also the time of adoption of the SFRY Constitution (1974), which elaborates these requirements in considerable detail.

The new aspirations were given precise normative elaboration in the Law on Associated Labor (1976). It placed the relations of private farmers with organizations of associated labor on the qualitatively new foundations that apply to

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\* "Program SKJ" [LCY Program], Zagreb, 1965, pp 126-127.



all fields of social labor. The emphasis is on formation of a self-management association whereby the labor and capital of the peasant sector would be brought into the entire agroindustrial complex, on the following principles:\*

- i. exercise of mutual influence on business policy,
- ii. joint taking of business risks,
- iii. joint responsibility for expanding the basis of operation and for raising productivity,
- iv. sharing the revenues realized on the basis of contributions to realizing the revenues and income,
- v. social security and equality of the associated farmers with other workers.

From the programmatic standpoint, these goals were well-stated, but it has been difficult to realize them in their practical application. There are a number of aggravating circumstances and obstacles, and we will shed light on some of them in the rest of the article.

Both the 11th and 12th LCY Congresses (1978 and 1982, respectively) took the views stated above as their point of departure. The basic line of development was still large-scale production for the market on socialized farms combined at the same time with advancement of production and socialization of the small-scale private sector and social integration of the peasantry into the socialist social system.

#### Basic Structural Changes in the Private Sector of Agriculture

Structural changes in the private sector of agriculture have been quite radical and numerous over the last 40 years of building a socialist society and of Yugoslavia's accelerated economic development, but at times there was a lack of that qualitative transformation which would facilitate a more effective development of agriculture. We are referring here above all to the landholding pattern of the peasant farms, which has by and large been preserved and does not show signs of constructive evolution. The figures on the number and average size of peasant farms speak persuasively on this point (Table 1).

The preliminary figures clearly indicate the irrationality of the landholding pattern of the peasant sector of agriculture--over the last 80 years the number of peasant farms has doubled, while at the same time there has been a drastic reduction in average farm size. This irrationality is compounded by the fact that the total stock of land is broken up into 17 million tiny parcels with an average size of only 0.6 hectare (1970). It is evident that the fragmentation and splintering of holdings have not ceased. In spite of the rapid shrinking of the farm population--from 67 percent in 1948 to only 20 percent in 1981--the tiny peasant holding is still dominant in our country. This tiny size of the landholding stands in the way of economical use of

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\* Articles 275-300 of the Law on Associated Labor.

up-to-date technology, especially machines, and it predetermines the low labor productivity of peasant agriculture. The legacy of the unfavorable landholding pattern, with all the accompanying consequences, is one of our country's paramount economic and social problems, and the further development of productive forces in rural areas depend on solving that problem. For sake of comparison, we might say that in 1970 Yugoslavia had tenfold more farms than neighboring Austria, eightfold more than England, and twice as many as the Scandinavian countries taken together. As the technological revolution in agriculture has taken place in all the economically advanced countries, there has also been a process in the opposite direction--reduction in the number of farms and a growth of average farm size.

Of the numerous elements which are included in the landholding pattern, we will restrict ourselves to analyzing only a few of the most important ones:

- i. changes in the number of farms and related changes in the landholding pattern;
- ii. analysis of socioeconomic and occupational characteristics of peasant farms; and
- iii. trends in the movement and composition of farm income.

Table 1. Number and Average Size of Peasant Farms

<u>Indicator</u>	<u>1900</u>	<u>1931</u>	<u>1949</u>	<u>1960</u>	<u>1969</u>	<u>1981</u>
Number of farms, in thousands	1,380	2,069	2,607	2,618	2,600	2,676
Average size of the landholding, in hectares	8.0	5.5	4.7	4.2	3.9	3.5

Source: V. Stipetic, "Prijeti li glad" [Does Hunger Threaten], Globus, Zagreb, p 138, for the period before 1949, and official statistical sources for the later periods.

#### a) Changes in the Number of Private Farms and Their Landholding Pattern

Whereas we previously pointed out the general tendency toward an increase in the number of peasant farms and a reduction in the average landholding size as an expression and consequence of the high overpopulation of Yugoslav rural areas relative to the amount of land and the slow development of the productive forces in the presocialist period, now we will show in more detail the landholding pattern of the private sector of agriculture over the last 20 years or so. Table 2 shows those changes and elucidates current trends in more detail.

It is evident that the number of peasant farms has still been increasing over the last 20 years, growing by nearly 60,000, and that that increase was achieved in the groups with the smallest landholding, especially in groups

with less than 2 hectares. At the same time there has been a reduction in the number of peasant farms with a landholding larger than 5 hectares. As a matter of fact, all categories with more than 2 hectares of land have recorded a decrease. In rough outlines the landholding pattern has the following form: almost one-third of the peasant farms have less than 1 hectare of land, approximately 50 percent of the farms possess less than 5 hectares of land, and only 20 percent of the farms have a holding larger than 5 hectares. These figures require special comment. It is evident that the landholding is continuing to be splintered, which contradicts what has been previously said about the reduction of rural overpopulation and very pronounced deagrarianization.

Table 2. Changes in the Landholding Pattern of Private Farms (1960-1981)

Farm Size, in hectares	Number of Farms, in thousands			%
	1960	1969	1984	
Less than 0.5 hectare	251	315	490	18.3
0.5-1	219	242	323	12.1
1- 2	445	464	479	17.9
2- 3	393	395	367	15.7
4- 5	251	231	207	7.7
5- 8	422	383	327	12.2
8-10	142	132	113	4.2
Over 10	187	151	126	4.7
Total	2,618	2,598	2,676	100.0

Source: Results of the agricultural census, official statistical report.

The explanation of this contradictory situation lies in the fact that an ever larger number of farms are ceasing to be the basic source of subsistence for the households living on them and are becoming a source of secondary or incidental earnings. This means that an ever larger number of farms are becoming mixed (parttime) farms, while fewer are turning into specialized farms producing for the market. This indicates at the same time the halfway nature of deagrarianization in Yugoslavia, since the deagrarianized population is still retaining its landholding. Moreover, we should also call attention to the inappropriate definition of the farm--Yugoslavia does not have a definite lower limit for the size of a farm, so that even landholdings smaller than 0.5 hectare in size are included in the category of farm, although these are mainly plots around dwellings or tiny holdings which their owners use to produce for their own table or even for recreation.

Now we will present regional differences in the evolution of the landholding pattern (Table 3).

The first table following shows the regional situation (the regions are federal units) in the number of farms and approximately reflects the level of economic development.

Table 3. Change in the Number of Farms in Republics and Provinces (1960-1981)

<u>Republic or Province</u>	<u>Number of Farms, in thousands</u>		
	<u>1960</u>	<u>1969</u>	<u>1981</u>
Bosnia-Hercegovina	455	498	540
Montenegro	65	62	59
Croatia	653	615	569
Macedonia	157	158	176
Slovenia	195	180	192
Serbia	1,093	1,085	1,139
Serbia proper	682	694	730
Vojvodina	308	283	290
Kosovo	103	108	119
Total	2,618	2,598	2,676

Source: Results of the agricultural census, official statistical report.

Table 4. Changes in Average Farm Size

<u>Region</u>	<u>Farm Size, in hectares</u>		
	<u>1960</u>	<u>1969</u>	<u>1981</u>
Bosnia-Hercegovina	3.9	3.3	3.0
Montenegro	5.0	4.4	4.0
Croatia	3.6	3.3	2.9
Macedonia	3.5	2.6	2.0
Slovenia	6.8	6.4	5.5
Serbia			
Serbia proper	4.8	4.6	4.2
Vojvodina	3.5	3.4	3.1
Kosovo	4.2	3.5	2.9
SFRY	4.2	3.9	3.5

Source: Results of the agricultural census, official statistical report.

In the less developed regions we note an increase in the number of farms--this especially applies to Macedonia and Bosnia-Hercegovina, while the number of farms has decreased in the advanced sections of the country.

Now we will show how the average farm size has changed over this period (Table 4).

The average size of the private holding has decreased in all republics and provinces as well as in Yugoslavia as a whole. Farm size is somewhat larger in Slovenia, where the pasture type of farming is predominant, while in the plains areas (Vojvodina and Croatia), where field crop production is intensive, the size of the holding is very small.

## b) Socioeconomic Composition of Private Farms

As a production and social unit the private farm consists of the landholding and machines and equipment (farming operation in the strict sense) and the manpower and the household living on it. One of the essential features of traditional agriculture is the overlapping of the physical and human factors within the peasant farm--the labor of the family, economic activity to support the household, inheritance of the farm, which arises out of the need to support the family, and so on. But the picture of the family farm has altered considerably under the influences of changes in production, technology and organization which the technological revolution has wrought in agriculture. One of the essential consequences is that the peasant household is no longer occupationally homogeneous, the family is no longer the farm's labor force, but rather its members are employed and earn income off the farm. This especially applies in the situation of rapid industrialization and the parallel existence of the very small landholding such as we have in our country. Of course, this is nothing specific to Yugoslavia at all--many other industrial countries, especially in Europe, have gone through and are going through a similar evolution, although only Japan has had the kind of massive occurrence of "mixed agriculture" such as we have today.

A direct consequence of the rapid exodus of manpower from agriculture, along with preservation of the existing network of farms, is the large-scale spread of so-called "mixed" farms and the predominance of parttime farming. This is usually related to the stratum of peasant-workers as a transitional category in the social composition of society, but that is an oversimplified stereotype which does not correspond to reality. Differing motives and orientations are concealed behind this phenomenon: the economic advantages of combining non-farm income and the additional pursuit of agriculture, preservation of the patrimony, recreational farming, the ecological advantages of living in rural areas, etc.

The simplest way of analyzing the socioeconomic composition of private farms, and this is the preferred way of official statistics, is the division into four groups according to the activity of the household members. These are the following:

- i. "pure" farms in which all the working members are employed on the farm,
- ii. mixed farms--those in which some of the working people work on the farm, while others work and earn income off the farm,
- iii. nonfarm households on which all members are employed off the farm,
- iv. farms without manpower, on which there are no working members, which are called "old people's" farms.

The 1959 and 1969 farm censuses were based on this conception, and Table 5 shows the pattern of peasant farms with respect to employment and source of income of working members.

Table 5. Socioeconomic Pattern of Farms 1960-1969

<u>Indicator</u>	<u>1960</u>		<u>1969</u>	
	<u>Number, in thousands</u>	<u>%</u>	<u>Number, in thousands</u>	<u>%</u>
Farm households	1,533	58.5	1,403	54.0
Mixed households	874	33.4	987	38.0
Nonfarm households	143	5.5	151	5.8
Households without manpower	67	2.6	57	2.2

Table 6. Money and In-Kind Portions of the Total Income of Peasant Households  
(Average Per Household Covered by the Survey)

	Total income = 100					
<u>Indicator</u>	<u>1960</u>	<u>1964</u>	<u>1968</u>	<u>1972</u>	<u>1976</u>	<u>1980</u>
Money	51.9	59.0	71.0	75.9	76.3	77.8
In-kind	40.1	41.0	29.0	24.1	23.7	22.2

Source: "Survey of Rural Households," statistical bulletin of the Federal Bureau of Statistics for the various years.

Table 7. Changes in Proportions of Income From Various Sources (Average Per Household)

	Total income = 100					
<u>Indicator</u>	<u>1960</u>	<u>1964</u>	<u>1968</u>	<u>1972</u>	<u>1976</u>	<u>1980</u>
Farm income	67.5	71.1	55.7	45.5	44.2	42.3
Off-farm income	32.5	28.5	44.3	54.5	55.8	57.7

Source: Same as for the previous table.

Even in the sixties almost half of peasant farms were in the group of mixed or nonfarm households. The growth tendency of the mixed farms has continued since then at an even faster pace. Although we do not have very recent figures on the pattern of peasant farms with respect to employment and source of income (since the 1981 Population Census dealt with agriculture only peripherally), it can be asserted with quite a bit of confidence that today two-thirds of private farms are mixed in character. By way of illustration we can cite the figures for the Republic of Croatia, which adequately reflects the general trends in Yugoslavia.

In that republic the pattern of farms with respect to source of income was as follows in 1981:

- i. income exclusively from an agricultural occupation--23.8 percent;

- ii. exclusively from nonagricultural activity--26.0 percent;
- iii. exclusively from personal benefits--13.7 percent;
- iv. from farm and nonfarm occupations--15.8 percent;
- v. from farm and nonfarm occupations and personal benefits (pensions)--2.3 percent;
- vi. from agricultural occupations and personal benefits--2.8 percent;
- vii. from nonfarm occupations and personal benefits--10.7 percent;
- viii. no members of the labor force and no personal benefits--4.7 percent.

The main conclusion which imposes itself is that the occupational and economic composition of peasant households is very heterogeneous and is becoming increasingly complex. From the standpoint of the need for efficient and productive agriculture, this situation is rather unfavorable. A large portion of the land stock is held by socio-occupational strata for which agriculture is a supplemental or incidental source of labor and income, and it is difficult to anticipate a faster development of agriculture and a restructuring from the traditional subsistence production to highly productive production for the market.

#### c) The Trend in the Growth of Income of Private Farms

It follows from the analysis we have made of private farms so far that they are heterogeneous and differentiated with respect to many features. The conventional differentiation of the peasantry into small, middle and large with respect to the size of the land available, which is well known in Marxist literature, does not apply or has been displaced to a considerable extent in the Yugoslav situation. In the process of industrialization and the employment of rural manpower in nonfarm activities (parallel to the existence of the very small holding), the money income of rural households has been growing rapidly, partly because of the increased proportion of agricultural output destined for the market, but to a considerably greater extent because of the inflow of income from employment off the farm or from other sources of earnings.

We will attempt, then, to briefly present certain of the more important components of the trend of the income of peasant households with respect to sources of income and changes in the relationship between the in-kind and money portions of income, which can serve us as an indicator of the extent to which rural households are participating in commodity-money relations. First we will see how the money and in-kind portions of income have changed over the last 20 years (Table 6).

It is evident that the relative share of money income in the total income has been increasing steadily, while at the same time the share of consumption in kind has been dropping, so that today it does not exceed one-fourth or one-fifth of total income. Members of the farm household who are permanently

employed account for the fact that the value of consumption in kind is still relatively high and rather small quantities of foodstuffs go to market. At the same time this is a reliable indicator of the ever greater involvement of rural households in the social division of labor and commodity-money relations. It is interesting to examine the sources from which income comes. Table 7 shows income grouped into that income which comes from the farm (sale of products, consumption in kind) and that income which is realized off the farm (employment outside agriculture, private enterprise, tourism).

The income which has been coming from off the farm has been getting larger and larger every year, so that today it exceeds the income realized from farming. Money income is becoming increasingly important, and the portion which comes from sources off the farm represents about two-thirds of the total income of rural households. Even these figures indicate the ever greater orientation toward sources of earnings outside agriculture and to the detriment of greater involvement on the owners' own holding.

There are considerable differences in the size and components of income of rural farms in different categories by the size of the landholding. Thus on the smaller farms a considerably larger share of the income has been earned off the farm than is the case with households that have a larger holding. This implies that farmland is the economic basis of support only for the fairly large farms. Thanks to the nonfarm income extensive economic differentiation has not occurred in rural areas. This means that nonfarm income has the role of an equalizer of the physical standard of living of rural households regardless of the size of the landholding.

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CSO: 2800/119



## TRADE IN AGRICULTURAL PRODUCTS WITH EFTA COUNTRIES

Belgrade GLASNIK POLJOPRIVREDNE PROIZVODNJE, PRERADE I PLASMANA in Serbo-Croatian Oct 84 pp 42-44

[Article by Dr Milorad Stojnic]

[Text] Poor weather conditions in most of the countries of the European Free Trade Association (EFTA) have for centuries been a limiting factor on the production of grain, especially wheat and corn, so that these countries have been oriented toward meeting their needs through importing. Annual wheat imports in this region amount to 1.7 million tons, and corn imports between 2.8 and 3.2 million tons, with Portugal alone accounting for about 2.5 million tons. Aside from corn and wheat, the EFTA countries also import large quantities of barley, between 600,000 and 800,000 tons a year, Finland accounting for about 300,000, and Switzerland about 250,000 tons. Since sugar beets are not produced in the EFTA region except in Switzerland, these countries are also oriented toward importing sugar from other countries.

Among the vegetable crops the EFTA countries are large producers only of potatoes, cabbage and lettuce, while they produce very little dried beans, tomatoes and peas. This region does not produce a very large amount of table grapes except in Switzerland and Portugal, so they are oriented toward importing grapes. As for oilseed, Switzerland produces some sunflower seed and rapeseed, while the other countries import the raw material or the finished products (sunflower and rapeseed oil).

The EFTA countries are large producers of apples and pears, some quantities of which are even exported to the foreign market. These countries do not have the conditions for tobacco production, so that they are oriented toward importing it from other countries.

Very great attention is paid in those countries to the development of animal husbandry and the industry for processing its products. The constant selection of dairy cows to increase milk production has helped the EFTA countries to have the highest milk production per dairy cow in the world. In recent years attention has also been paid to the selection of bulls and heifers to increase milk production per cow. Since these countries possess very good-quality livestock, in recent years there has been an increase in the export of breeding animals from all countries, especially Switzerland, where spotted [?] cattle have been produced.

In order to reduce imports of farm products, the EFTA countries have in recent years paid great attention to the development of the agroindustrial complex in order to produce as much food as possible. Nevertheless, they have been unable to meet the domestic demand, but have been forced to import larger quantities of farm products, especially grain and processed meat, fruit and vegetable products. Total imports of raw and processed foods into those countries range from \$10 to \$11 billion a year, depending on the volume of domestic production. Total imports of Austria, Switzerland and Sweden amount to about 65 percent of that region's total imports of food.

Table 1. Total Imports and Exports of Farm Products of the EFTA Countries in the Period 1980-1981 (value in thousands of dollars)

Country	Imports		Exports		Deficit	
	1980	1981	1980	1981	1980	1981
Austria	1,829,619	1,599,783	775,688	732,132	-1,053,923	- 867,651
Finland	1,226,777	1,035,714	665,621	888,519	- 561,158	- 147,195
Iceland	105,710	109,642	28,638	25,382	- 77,072	- 84,260
Norway	1,288,369	1,138,624	352,375	323,733	- 936,534	- 814,891
Portugal	1,582,941	1,753,938	461,457	404,029	-1,121,484	-1,349,909
Sweden	2,336,930	2,016,801	774,359	763,939	-1,562,571	-1,252,962
Switzerland	3,158,745	2,955,733	1,060,317	991,709	-2,098,429	-1,964,024
EFTA as a whole	11,529,091	10,610,235	4,118,415	4,129,443	-7,410,676	-5,480,792

If we examine the long-term trend of imports of farm products, a tendency to decline is evident. The general conclusion is that in recent years there has been a shrinking of the food shortage, so that the annual shortage ranges between \$5 and \$6 billion.

#### Yugoslav Exports of Farm Products to the EFTA Countries

Since a law of free competition prevails on those markets, it would be natural that Yugoslavia should in past years have achieved considerably better results in the exporting of raw and processed foods. However, this has not occurred. The trends have been in the opposite direction; that is, our exports have been decreasing steadily. The main reason is the inadequate study of the market of those countries and the lack of sufficient commitment on the part of exporters.

One can see in Table 2 that Yugoslav exports of raw and processed foods to the EFTA countries in 1983 were 18 percent less than in 1982, when they amounted to 3.6 billion dinars, or \$88 million. The share of the EFTA countries in total Yugoslav exports of farm products has dropped off sharply in recent years (they fell from 7.7 percent in 1982 to 3.9 percent in 1983). This shows that in coming years urgent measures should be taken to augment exports of farm products to that market. It is interesting to cite that in spite of the decline of exports, there has been a growth of imports of farm products from the EFTA countries, so that total imports in 1983 were eightfold larger than in 1982.

Table 2. Yugoslav Exports of Farm Products to the EFTA Countries in 1982 and 1983

Value in thousands of dinars and thousands of dollars

Country	1982		1983		Index 1982 = 100/1983	
	Dinars	U.S.	Dinars	U.S.	Dinars	U.S.
		Dollars		Dollars		Dollars
Austria	2,601,047	62,226	1,819,057	28,693	70	46
Sweden	324,297	7,758	545,780	8,609	168	111
Switzerland	707,958	16,937	678,430	10,701	96	63
Norway	49,758	1,190	28,201	445	58	37
Finland	8,072	193	--	--	--	--
EFTA as a whole	3,691,132	88,304	3,071,468	48,440	83	55

Table 3. Yugoslav Exports of Farm Products to the EFTA Countries in 1982 and 1983

Quantity in tons, value in thousands of dinars

Product	1982		1983		Index 1982 = 100/1983	
	Quantity	Value	Quantity	Value	Quantity	Value
	2	3	4	5	6	7
Live animals	617	47,717	399	40,138	65	84
Fresh meat and viscera	1,280	108,078	2,666	453,881	208	420
Dried, salted and smoked meat	50	21,508	82	45,826	164	213
Processed meat products	1,086	142,810	576	93,991	53	66
Milk and dairy products	197	15,545	110	14,820	56	95
Eggs and processed products	434	26,205	964	72,407	222	276
Fish and processed fish products	5,435	307,603	4,352	346,679	23	113
Grain	34,269	215,725	7,923	79,970	80	37
Processed grain products	3,316	72,417	183	6,985	6	10
Fresh fruit	3,316	72,417	26,238	193,129	91	267
Dry fruit	153	7,362	199	9,606	130	131
Processed fruit products	1,010	29,579	264	9,606	26	32
Fruit juices	4,176	144,505	5,723	237,357	137	164
Frozen fruit	6,004	218,826	5,506	219,229	92	100
Fruit pulp	366	7,740	240	6,963	66	90

Table 3 (continued)

1	2	3	4	5	6	7
Fresh vegetables	1,222	39,276	4,331	40,206	354	102
Frozen vegetables	1,422	26,138	2,599	63,398	188	242
Dried vegetables	420	87,039	350	466,572	89	111
Pickled vegetables	2,091	46,043	2,670	56,864	105	108
Processed vegetable products	345	35,716	1,425	117,196	230	256
Sugar and processed sugar products	162	15,764	530	10,339	110	98
Coffee, cocoa and other products	807	183,404	7	25,014	--	--
Spices	202	9,671	450	37,594	227	389
Livestock feed	9,288	27,239	9,404	57,811	108	212
Other foodstuffs	363	17,491	544	35,782	150	205
Nonalcoholic beverages	6,880	22,343	6,756	22,439	98	100
Alcoholic beverages	8,201	148,678	3,113	27,657	38	20
Tobacco and tobacco manufactures	2,313	413,303	3,041	387,884	131	94
Other	2,197	112,544	2,011	84,758	92	66
Medicinal herbs	230	35,572	183	30,064	80	85
EFTA as a whole	98,598	3,691,132	94,596	3,071,468	96	83

Yugoslav exports of farm products to the EFTA countries have stayed at the same level in recent years, and one can cite as the main reason the change in the pattern of exports: in past years the orientation was above all on exports of raw materials and less emphasis was put on the exporting of finished products. When the variation of exports is examined in terms of product groups, one notes that in 1983 there was a drop in exports of fresh meat and viscera and a growth in exports of processed meat products. As for exports of milk and dairy products, there has also been a drop, while exports of eggs and egg products have increased somewhat. In spite of the favorable conditions, exports of fish and processed fish products have been dropping off steadily. Although the EFTA countries are large importers of grain, our exports of these products have been minimal: only 399 tons in 1983. Among processed grain products Yugoslavia is exporting fairly sizable amounts of macaroni and spaghetti, but it is exporting very little farina, bread, cookies and crackers and other products.

Because of its sensitivity and lengthy shipment the fruit trade has mainly oriented toward Austria, which takes about 80 percent of Yugoslav exports of fruit, while all the other EFTA countries account for only 20 percent. This applies mainly to fresh fruit. However, when it comes to dried, frozen and processed fruit, we should say that exports of prunes are very small, going mainly to Austria, Sweden and Switzerland. As for processed fruit products, we are exporting slightly more juices to Austria, Sweden and Switzerland, whereas we do not exist at all on the other markets of EFTA. A certain amount

of pulp is also exported, and that to Switzerland and Austria, and from time to time we also figure on the markets of Sweden and Norway.

Conditions are very favorable for exporting fresh vegetables to these countries, especially early vegetables, which Yugoslavia can produce in adequate amounts. It is a favorable circumstance that the Austrian market is very close, and even the Swiss market is not far away, so that by all the criteria the exports of fresh vegetables ought to be far larger than now. Although in recent years there has been an increase in exports of frozen vegetables, annual exports are only between 2,000 and 3,000 tons, which is very little. Exports of dried vegetables have for several years held at the level of between 350 and 400 tons.

Table 4. Yugoslav Imports of Farm Products From the EFTA Countries in 1982 and 1983

Product	1982		1983		Index 1982 = 100/1983	
	Quantity	Value	Quantity	Value	Quantity	Value
Livestock	194	25,375	40	29,579	272	179
Meat and viscera	345	102,763	611	110,487	177	108
Milk and dairy products	235	20,414	1,199	169,837	5,711	832
Eggs and processed egg products	13	2,620	--	--	--	--
Fresh and processed fish	21	589	220	46,530	1,076	7,879
Grain	87	21,999	53,478	555,575	--	--
Fresh fruit	14	327	--	--	--	--
Dried fruit	--	--	16	1,047	--	--
Processed fruit products	2	262	--	--	--	--
Sugar and processed sugar products	2,084	25,319	39,237	746,509	1,883	2,948
Coffee, cocoa and their products	--	--	102	8,212	--	--
Spices	3	574	5	674	169	117
Livestock feed	109	40,384	3,306	160,100	3,033	396
Other foodstuffs	22	3,953	86	19,918	391	504
Nonalcoholic beverages	15	306	353	9,739	--	--
Alcoholic beverages	21	5,651	9	2,512	43	44
Tobacco and tobacco manufactures	20	4,413	3,110	323,924	15,560	7,340
Raw and dry hides	--	--	33	2,694	--	--
Seed for planting	--	--	18	1,167	--	--
Wool, scoured and unscoured	251	29,292	--	--	--	--
Medicinal herbs	--	--	--	--	--	--
Seed, plants and cuttings	--	--	--	--	--	--
Total EFTA	4,673	194,367	100,014	1,777,610	2,140	915

## Yugoslav Imports of Farm Products From the EFTA Countries

When it comes to imports of farm products from the EFTA countries, the tendency is the opposite. Total imports of farm products in 1983 reached 1.7 billion dinars and were eightfold larger than in 1982. Such large differences are the result of imports of wheat and sugar from Austria.

As for other farm products, imports in 1983 remained at the 1982 level. Austria is in first place with 94.4 percent of the volume of imports, and then Switzerland with 3.7 percent.

Yugoslavia does not figure at all in imports of farm products from Finland, Iceland and Portugal. Also Yugoslavia has not exported anything to Finland, Iceland and Portugal.

When we look at exports in the breakdown we immediately note that Yugoslavia is importing breeding stock, beef and viscera from the EFTA countries, and then fresh milk, butter, frozen fish, concentrated fruit juices, dried beans, refined sugar, spices and vitamin-rich livestock feed, and then a bit of hides, wool, feathers and seed.

## Conclusion

The statistics on the trend of foreign trade in farm products with the EFTA countries show that Yugoslavia has had less than a 1-percent share in imports of farm products of the EFTA countries. Total imports of farm products of all seven countries of EFTA amounted to \$10.6 billion in 1981, while exports were \$4.1 billion, which means that the EFTA countries have a food deficit amounting to \$5.5 billion. Yugoslav exports are raw and processed foods to the EFTA countries and amounted to \$88.3 million in 1982, while in 1983 it fell to \$48.4 million. The drop in the value of exports was not so much the result of a decreased volume of exports as from the rise in the dollar's rate of exchange. If we analyze the imports of the EFTA countries, then we can say that the trend of imports has been a steady rise. Forecasts of the demand for farm products indicate that in coming years there will be larger imports of all farm products into the EFTA countries, especially grain, sugar, meat and meat products, fruit and vegetables.

As we see, the possibilities for increasing Yugoslav exports of farm products do exist, but the question is what advantage is being taken of them. In order to augment exports, it would be necessary to establish a list of goods which the particular markets are looking for. Since we are talking about countries with a high standard of living, particular attention must be paid to packaging and presentation of our products (the competition on the markets of the EFTA countries is very strong from other exporters, especially the United States, Spain, France, Italy, Holland and the other countries of the European Economic Community). Since these are very distant markets, and shipment is very expensive, our chances are especially favorable for exporting finished products, namely products of meat, fruit and vegetables, as well as Yugoslav specialties--ham, prosciutta and cheeses.

As for imports, it should be said that Yugoslavia is importing very small amounts of farm products from these countries. This does not mean that in future products in short supply will not be imported from those countries, and that above all processed fish products, codfish, grass seed, vegetable extracts and raw and dry hides.

It can be stated by way of a general conclusion that up to now we have not been very evident in exporting farm products to this market, and therefore our business people ought to take a greater interest in exporting farm products to the EFTA countries. It is also indispensable that farm products from Yugoslavia be advertised more on those markets. There is a particular desire for investment of the capital of the EFTA countries to develop the agroindustrial complex in Yugoslavia, since that would bring about a growth of production and certainly a growth of exports of farm products to those markets as well.

7045

CSO: 2800/119

CONFERENCE ON DECLINING LABOR PRODUCTIVITY

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 24-26 Nov 84 p 5

[Article: "We Should Be More Concerned With Expended Labor Than Active Labor; Discussion Involving Scientists and Economists on Properties of the Economy"]

[Text] A recent conference at the Yugoslav Economic Chamber confirmed the familiar appraisal that productivity in our country has declined drastically, that we have virtually no explicit definition nor precise methodology for measuring this category of labor, and that over the last 10 years the number of administrative workers in industry has doubled.

It is apparent that associated labor is completely aware how inadequate the quality of its work is during regular working hours, how unproductive our workers are, that our products are often of unsatisfactory quality, and that our competitiveness on the international market is far behind that of developed countries. Economists have emphasized our low productivity in standard reports in official documents or in the press, and obviously there were no controversial elements at this meeting. If one listens to the eminent participants in the discussion--held recently in the Economic Chamber of Yugoslavia--all that is unclear is how these poor results might be quickly remedied. For the most part, however, the discussion was resolved to describe what has already been established. It is hard to believe that we can expect the entire complex of problems to correct itself merely by enumerating areas where we are weak.

In this article we will recall the most interesting reports which were given on the discussion topic: "Direction of Labor Productivity and Rationality in Economic Functioning"

No Grounds For Optimism

In the introductory report, Dr Mihajlo Lasica, secretary of the Coordinating Committee for Advancement of Labor and Business of the



Economic Chamber of Yugoslavia, warned of indicators which show unfavorable directions in labor productivity:

	<u>Social Product</u>	<u>Employment</u>	<u>Productivity</u>
1980	102.39%	103.55%	-1%
1981	101.27%	102.67%	-2%
1982	100.63%	102.60%	-2%
1983	-2%	101.81%	-4%

This year, a slight increase in productivity is being recorded.

If labor productivity in our country is compared with developed countries in Europe and the rest of the world the lag is even greater, according to OECD 1981 data. The amount of this lag has increased in recent years. If we add to this the lag in the quality of goods, design, selection, and other criteria, it is hard to believe we have any chance of attaining a very high level of exports next year.

"Under the present difficult conditions, we must find solutions and suggestions pertaining to how to stop the decline in labor productivity, especially through eliminating problems which influence this decline--reducing shortages of quality raw materials, semifinished materials, and spare parts, improving capacity utilization in many areas and increasing employment," stressed Mihajlo Lasica. "This is especially necessary for us because of the adoption of planning documents for next year, the middle-term and long-range concept for social and economic development of the country, and because productivity as it relates to greater exports and reduced inflation is a most important force in overcoming failures."

Professor Stjepan Han emphasized that it is not possible to consume more if more is not produced, and that the dramatic fall in productivity in recent years makes it impossible to go to the world market on an equal basis.

"When the Federal Bureau for Labor Productivity ceased to exist 25 years ago, a period of great self-satisfaction began," the professor continued, who is well-versed in this area. "Some influential people considered it unnecessary, even harmful, to compare ourselves with foreign countries regarding labor productivity. We were satisfied to compare only our own performance over time--this is necessary, but it is not enough. We were not aware of the fact that we were in last place in Europe with regard to labor productivity."

Professor Han illustrated our backwardness in this area with several examples. To produce 150 tons of steel in the Siemens-Martin furnaces in West Europe, approximately 45 minutes are needed, while in our country we need 6 hours (8 times more). Labor productivity is at the same level in surface coal mines because we are 6 times less efficient than workers in the Federal Republic of Germany. We are also lagging in agriculture, although we often stress that there are great possibilities for domestic farming. As another example, today our contractors take 42 hours to construct a square meter of housing area, while workers in Holland, the Federal Republic of Germany, Czechoslovakia, and many other countries perform the same job in half the time.

Here is one more interesting fact. The average growth rate for productivity of labor in our country between 1957 and 1960 was 5.4 percent, between 1976 and 1980 2.1 percent, and during 1980 only 0.4 percent.

### 3-Hour Work Day

Professor Han claims that one reason for low productivity is poor utilization of time at work.

"When we were preparing to transfer the Yugoslav economy from a 48-hour weekly work schedule to a 42-hour a week regime without a reduction in annual productivity, a study group of prominent scientists from all over the country (doctors, psychologists, sociologists, economists, engineers, and labor organizers), at the request of the Federal Commission for the Work Week, carried out a number of studies, and the results of these studies are valid today. For example, in one metalworking collective which was unusually well organized, it was ascertained that on an annualized basis workers were engaged in productive labor for only 3 hours and 6 minutes a day! We arrived at this fact while examining how much time a worker spent at his job. This analysis indicated that workers are most often absent because of illness, taking annual vacation, shortage of raw materials, machinery being out of order, arbitrary work interruptions, etc.," according to this prominent expert.

Professor Han stresses that to a great extent the structure of our workforce has been "to blame" for poor results in this area. Thus, over the last 10 years the number of administrative workers in industry has doubled. It is interesting to make a comparison with neighboring countries. If we reduced the percentage of administrative-technical workers in our industry to that of Hungary, we could return approximately 140,000 workers to the production area, and if we had the proportions that Rumania has, direct production would receive "reinforcements" of 370,000 workers.

### Why Are We So Far Behind?

The conclusion is obvious--more workers are put to work in administrative duties in our country than can be justified. A definite increase in this structure began after 1974 (after passage of the constitution and introduction of communities of associated labor). Also, the number of engineers and technicians in industry is inadequate.

"If we look at abstract indicator of labor productivity in some European countries, we get a better picture of our situation," continued Stjepan Han. For our country it comes to \$2,380, for Hungary \$3,500, for the Soviet Union \$3,700, for the German Democratic Republic \$5,700, for France \$8,000, and for the Federal Republic of Germany almost \$10,000. What does this mean with regard to international trade? It means that to receive one product of active labor of one worker in these countries we have to export one and a half products which takes our workers 1½ hours, or 2 hours, or twice as much. We are justifiably proud of fighting against colonialism, but we are putting ourselves in a subordinate--indeed colonial--position with our poor productivity.

Professor Han mentioned that productivity measures in our collectives have been taken again this year, and the result (3 hours of effective economic functioning) has not changed. Practically speaking, a real epidemic of discipline in our organizations is one of the main reasons for low productivity.

Branko Ivkovic, of the Kragujevac School of Mechanical Engineering, said: "Our problem is in the perception of labor productivity. We now have only one indicator of productivity, and this is social product. According to this measure, we perceive that our productivity has fallen in recent years. This indicator is used only with social-political communities, or republics and provinces, and conceivably with industry areas. Labor organizations, basic organizations of associated labor, SOURs, or larger production systems practically speaking have no defined indicator concerning labor productivity. Analyses which we have carried out while investigating this area indicate that in an enormous number of organizations they don't even know what labor productivity is, nor do they have coordinated perceptions of this concept. In Marxist theory and in socialist countries in general, the concept of labor productivity means production plus services--that is, only active labor. The Yugoslav Bureau of Statistics keeps track of the amount of consumption of active labor for the production of steel, coal, wheat, and other goods."

A second approach, according to Ivkovic, is through an indicator which measures consumption of total labor--both active labor and expended labor--and this is mostly used along with production and services for obtaining social product. The second definition has not been accepted in practice, although applications are found in Marxist theory.

"The definition of productivity we use has brought us to the depths, and not only us, but other socialistic countries as well, because in working on production projects, constructing factories, and carrying out production processes, the amount of time consumed in the creation of a new product was exclusively taken into consideration, and expensive equipment, new technology, automated production processes have been purchased, and factories have been opened which, in reality, work little," the engineer from Kragujevac stressed. "We have a number of products in which little time is consumed in production--for example, in making a ton of steel or an electrical motor we consume the same amount of time as the Italians and other industrialized countries, but our productivity is nevertheless four, five times lower. The reason is that we do not take into consideration the consumption of expended labor, and it is included in credits from developed countries, in our equipment, in all material expenses, unused capacities. All this is because we do not concern ourselves with expended labor, but only with active labor. This means it is high time we measured total labor consumed, and not only active work."

#### Establishing Joint Measures

Ivkovic also spoke about the problem of direct and indirect labor. In other words, we exclusively measure direct labor, hence, production labor, although nonproduction labor does not exist. This discussion participant claims that

by the end of this century we can expect to have very little direct labor. Indirect labor will dominate, because of the great amount of automation and the development of technology in industry and in general. Today this problem is being felt in our country in the proportion 70:30 in favor of direct labor. That is, the problem of our low level of productivity lies in the large percentage of active, or, direct labor.

Professor Isak Mustafa stressed that we cannot be satisfied with the results of former middle-term and long-range plans--from the opstina to the federal level--because we have not paid enough attention to productivity of labor. Subsequently, we have not analyzed why productivity has fallen and how we can eliminate these problems. In carrying out these studies, science has not been adequately respected and utilized as well. We have not responded because of this, and in spite of the considerable number of scientific institutes and experts, productivity has continued to fall.

"Indeed, we have discussed this set of problems an adequate amount at scientific meetings, but we have not been able to transfer the results and the experiences from these meetings to where the battle for productivity is taking place--that is, in basic organizations of associated labor," said Mustafa. "Because of this, we must compose common measures and criteria for measuring labor productivity, and this unified methodology of ours must be compared with international methodology for this area. We must be sure to provide for increased employment along with greater productivity. Today it is the other way around, because we have economic areas in which growth in social product is based on great employment, and not an increased productivity. This means we must improve capacity utilization, increase accumulation, introduce multishift labor, etc. The Yugoslav Economic Chamber, together with other economic chambers, must begin to compose a productivity program for the country up to the year 1990, from basic organizations to the federation level."

9548

CSO: 2800/108

## DISORGANIZED, FRAGMENTED FOREIGN TRADE OPERATIONS NOTED

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 28 Nov-3 Dec 84 p 3

[Article by Dr Milan Sojic: "Defects Amounting to One-Tenth of Exports"]

[Text] In the context of the gradual revival of domestic physical output the results in our country's foreign trade have been considerably below the planning targets in both 1983 and 1984. Total material production in the first 9 months of 1984 rose about 2 percent, and industrial output about 5 percent. The real volume of exports, however, showed a zero growth rate in the first 8 months (they increased 4 percent in nominal terms, but export prices rose about 4 percent). The real volume of imports at the same time dropped about 2 percent. The real volume of exports dropped 8.5 percent between 1981 and the end of the third quarter of 1984, and the real volume of imports fell about 23 percent over that same period. The ratio of exports to imports was considerably more favorable (about 84.7 percent) than in previous years (59.6 percent in 1980), but in 1984 this was achieved primarily by restricting imports, not by strengthening exports.

Total Yugoslav exports have ranged over the last 7 years between \$9.7 and \$10.2 billion, and Yugoslav imports ranged \$12-15 billion.

The results of our economy's foreign trade would have been considerably more favorable if exporting and importing had been organized more optimally from an economic standpoint. According to our estimate, at least 10 percent of the value of total exports, or about \$1 billion, are lost every year because foreign trade is not properly organized. Over the 5-year medium-term period the total benefit would have been, in our estimate and with other conditions unchanged, more than \$5 million, and that is almost equivalent to the annual payment (principal plus interest) against our country's foreign debt.

#### The Shuffling of Goods at a Loss

The conclusion drawn from the most recent research done by the Social Sciences Institute on the realization and distribution of income, which was done for the Economic Chamber of Yugoslavia, is that more than 100 key products or groups of products are simultaneously exported and imported. They include, for example, the following products: scrap iron and sheet metal, bauxite, coal (brown), coke, motor and special gasoline, synthetic fibers, cellulose, detergents,

nitrogen fertilizers, polyethylene, rubber, tires (inner tubes for buses and tire casings for tractors), wood panelboard (fabricated), veneers, newsprint, kraft cardboard, cement (porcelained), asbestos-cement sheets, sandpaper and emery cloth, ferromanganese, ferroalloys and silicoalloys, rivets for sheet metal (unalloyed), rolled wire (unalloyed), alloy steel rod, steel (light shapes), heavy and light sheet (uncoated alloy), iron and steel forgings, copper anodes and cathodes, brass sheet and strip, nickel alloys (unworked), aluminum bar, aluminum rod, shapes and wire, refined lead, refined and electrolytic zinc, prefabricated roof components, lead storage batteries, refrigeration equipment, bulldozers, tractors up to 88 kw, nylon and perlon yarn, blankets and bedspreads, barley, sugar (refined) and a number of products (unmentioned) of the manufacturing industry.

It should be borne in mind that some of the products do not coincide in quality and assortment, and that would require more detailed individual analyses.

For each of these products (and a number which have not been mentioned) exports and imports were up 100 million dinars in the first 6 months of 1984. It is especially unfavorable that 70 percent of these products (or product groups) bring lower export prices than the import prices which are paid.

#### Eliminated Items Still Exist

Which, then, are the principal defects which are influencing Yugoslav foreign trade? We cannot go into detail here as to all the causes and all the outstanding problems, but some of the most influential can be mentioned. First, there are major defects in the foreign exchange system which have been evident and well-known to everyone for a long time and are not a function of the country's long-term strategy and development policy. Second, there is more and more exporting "at all costs," which is often viewed as a kind of "sell out" of our goods and services. Third, the network of foreign trade organizations and representative offices abroad is too fragmented and disconnected, and it has not been aimed at achieving the planned lasting benefits from stabilizing foreign trade. Certainly the fragmented offering of exports cannot achieve favorable results in trade with the concentrated (volume) demand of the large companies (including even multinational corporations) on the market of the advanced countries or indeed even the centralized import demand of the CEMA countries.

A fourth factor is that our domestic material balances of reproduction are leveled out in large measure by way of foreign countries--because domestic business activity is rounded off regionally and because the republics and provinces have their own payments-balance positions (although "in the shadow," since they have been abandoned as an institution). It is a very frequent phenomenon that the fragmented and very small foreign trade organizations compete directly with one another in exporting and do so with the same foreign trading partner. There have been quite a few such examples in all sectors and branches of the economy, and it actually drives down our export (foreign exchange) prices by 10-40 percent. Fifth, the export prices of products are as a rule lower than the import prices, and also changes in "terms of trade" have been negative for a number of years following the first and second "petroleum shocks."

According to the results of the survey, 1-2 percent of the national income has been annually lost in the previous medium-term period and at the beginning of this 5-year period on the basis of the change of export-import prices in the context of unbalanced trade. Sixth, because of the stagnation of domestic production and the drop in labor productivity (except in 1984) sufficient attention has not been paid to production for export, nor indeed even to all the essential nonprice factors of Yugoslav exports (from design and quality to sales terms and method of payment). Seventh, the accelerated growth of domestic production costs and the very high domestic inflation have been acting as a disincentive toward a bolstering of exports in a number of activities. This especially applies to the period from 1981 to 1984, when the rise of the general price level increased steadily and reached 55-60 percent (in 1984). Eighth, the devaluation of the dinar, although it has been very great over the last 3 years, has not resulted in a real growth of exports, so that for the present this economic instrument has proved not to be effective enough in strengthening export activity.

The most recent research has established that between 1980 and September 1984 the dinar has been devalued faster than domestic prices have risen, since its value over that period fell 4.5-fold against a group of 11 convertible currencies and 6.1-fold against the dollar, while prices in Yugoslavia have risen 3.7-fold over that period (retail prices of the Federal Bureau of Statistics).

Viewed in structural terms, and this is the ninth factor, our exports are unfavorable because of the high and predominant share of raw materials and production supplies and indeed even energy in the total value of exports. Often it is precisely raw materials which are scarce on the domestic producers' goods market that are exported, as shown by the research already mentioned by the Social Sciences Institute. Tenth, the provisions of the fiscal system have not been set up so as to act as an incentive, they do not encourage a bolstering of export activity, which, incidentally, is customary in the countries which are our most important competitors and trading partners on the world market.

#### Falling Sales of Machines and Equipment

In the breakdown of exports by economic purpose in 1984 we see a strengthening of exports of raw materials and producer goods, which amount to more than half (54 percent) of the total value. The share of machines and equipment in total exports has by and large had a constant share of about 32 percent. It is significant that the share of exports of machines and equipment in total exports has dropped (about 4 percent) from the previous year, so that in the first half of this year it amounted to about 14 percent. Developments of this kind are markedly unfavorable for our economy, although it is difficult to anticipate that it would be possible in the short run to carry out the kind of structural changes of exports that would put greater emphasis on equipment and manufactured products for final consumption. This is happening primarily because of our appreciable lag in technical and technological development relative to the competition of the industrially advanced countries (indeed even of certain of the more advanced developing countries), as well as because of the profound lack of technical, technological and organizational unity of the domestic technological base, accompanied by the lack of an organized representation on

foreign markets. As for the possibilities of larger exports of products for final consumption, here again the lack of organization and the mutual competition stand as considerable limitations, although another factor here is the inadequate supply of raw materials and producer goods to production, the mediocre or poor quality of domestic products, the relatively more favorable conditions for sales on the domestic market, and the protectionist measures being taken by the advanced countries.

The directions for overcoming the present, basically unfavorable, developments in foreign trade might mainly be sought in removal of the permanent and obviously defective provisions in the foreign exchange system, but also in overcoming more rapidly the present fragmentation of the export offering and consolidation of the demand for imports, which necessitates reorganization of the foreign trade network and establishment of its organizational linkage as well as strict penalties for those organizations which engage in disloyal competition abroad (going even so far as to remove them from the register of foreign trade organizations).

All the more important export offerings and planned imports must be the subject of prior agreement in the country and the appropriate bodies of the Economic Chamber of Yugoslavia and other authorized public institutions, and then there must be incentives to bolster overall physical output and production for export (so as to achieve competitiveness in unit production costs), and the exporting of raw materials must be discouraged through measures of protective policy. Aside from that, the measures of fiscal policy need to free exporters of at least a portion of taxes and contributions, and the measures of economic policy and changes in the provisions embodying the economic system must operate more effectively in the direction of reducing the present high rate of inflation, and so on.

Our share in world exports, which is now at the low level of only 0.5 percent, can be strengthened with these and other measures not mentioned. At the same time it is possible to realize considerably more foreign exchange, even without changing the volume of trade. That would contribute greatly not only to more rapid repayment of the foreign debt, but also to more stable development of Yugoslav foreign trade and domestic economic developments as a whole in line with the commitments adopted in the Long-Range Program ... and the planned long-range strategy for the country's development up to the year 2000.

7045

CSO: 2800/116



PKJ OFFICIAL DISCUSSES PKJ REORGANIZATION, ECONOMY

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 28 Nov-3 Dec 84 p 3

[Article by Dragoslav Zivojnov based on interview with Nikola Filipovic, member of the Presidium of the Economic Chamber of Yugoslavia: "Incompetents Are Making Too Many Decisions"]

[Text] Associated labor must be given more room for better organization, larger production, productivity, competitiveness and income, and incompetents must give up their places to personnel who know how to augment exports and reduce inflation. This is not any sort of insoluble equation; successful conduct of economic activity is not an unknown to a sizable portion of our business executives, but their attributes have been neglected for too long. But the difficulties which have been pressing upon us in recent years, especially the high rate of inflation, which will also continue in the coming year, do not leave any more room for dilemmas and those who are indecisive. This is the assessment of the most urgent tasks for the system of economic chambers and associated labor in implementing the Long-Range Economic Stabilization Program according to Nikola Filipovic, member of the Presidium of the Economic Chamber of Yugoslavia, which he expressed in a conversation with Dragoslav Zivojnov, PRIVREDNI PREGLED editor.

Pointing to the causes of the high rate of inflation, Nikola Filipovic emphasized that demand has still not been brought into line in the sector of raw materials and production supplies, and that even when this situation is corrected somewhat, prices do not stop rising, since this kind of functioning (nonfunctioning) of the market is one of our true phenomena. "In the import program for next year we envisage outlays of \$14 billion, since our economy depends a great deal on foreign components, and that means that the downward slide of the dinar will continue," our interviewee told us. "On several occasions we in the Chamber have stressed that many economic measures for restoring health to the economy are lacking, and all of this has had a bearing on the constant devaluation of the national currency, since we took up the lightest weapon we could find."

Interest is the second largest item in cost increases, and last year reached 395 billion dinars. We expect it will be still greater next year, but already 80 percent of our economy's working capital is credit. A word or two about working capital, which in 1983 amounted to 4,896 billion dinars. Its turnover coefficient last year was 2.33, while 12 years ago it was 4.34 percent. It is not difficult to calculate how much less interest the economy would pay if that coefficient were attained.

Here we should also recall that the ever higher exchange rates give an impetus to cost relations, that is, they tend to raise prices, since that is the easiest way for collectives to "cover" business costs. By law these differences are not written off, but distributed over several years.

#### It Is Not a Time for Dilemmas

Filipovic says that the new increased expenditures for government and social service expenditure can be expected to give a new shock to costs. The federal budget envisages a growth of 48 percent, and if that is a signal for other sociopolitical communities and others who live at the expense of associated labor, then this will certainly greatly diminish the economy's income.

When asked what was the way out of this situation, our interviewee feels that it lies primarily in increased output, in better capacity utilization, in higher productivity, and in getting rid of inventories. Although these are the basic rules of economic behavior, we are, of course, abiding by them very little in practice, as though the situation were going to correct itself automatically. To be sure, a large number of problems is being slowly dealt with, since even economic policy measures for overcoming the difficulties more rapidly, especially in the planning documents, do not provide a guarantee of qualitative changes....

"Exporting is our paramount task, and we will not achieve that without larger output and better-quality production. But first we have to have an appropriate incentive for the economy that would consist of bringing government and social service expenditure within realistic limits, within those limits which the income of the economy can support. I think that our society is indecisive in this regard, since "forces outside associated labor" are becoming stronger, those who are making decisions about how much will be taken from associated labor are stronger. There are still dilemmas here about financing the so-called superstructure, and it is easier to take the money first and then later 'return it' to the economy. Wouldn't it be normal to devise a more balanced burden from the beginning? The Chamber has done quite a bit in that direction this year."

Forms have to be found for returning a portion of interest to associated labor and halting the siphoning of income through interest from the socialized into the private sector. This can be solved with the appropriate tax policy. There are grounds for revising expenditures for customs duty and fees on imported components since their base is rising as the value of the dinar continues to drop.

These are all extremely important jobs in the coming year, especially since the general conception of the Resolution contains no great differences from the document for the current year, Filipovic said. To be sure, there are modest constructive trends in certain forms of economic activity this year, but by no means do they guarantee successful implementation of the Long-Range Economic Stabilization Program, nor even the first phase of that document.

We should not forget that we have adopted the correct conception for halting the drop in the real standard of living, and we have to make it possible for it to rise, but more favorable conditions are needed, and that means more robust income. Yet that will be still another blow to costs, and to this we should add the anticipated growth of depreciation, losses and all the rest (which we cram into the prices); cost inflation will have a stronger impact next year than this year.

#### A Start on "Mini Reorganization"

Along with the tasks of this program in the coming year and those which follow, there is also an important task to be done in the system of chambers that is truly "local" in nature: reorganization of all associations of associated labor. It is well known that in the PKJ [Economic Chamber of Yugoslavia] alone there is a staff of more than 640, and then in the 20 or so general associations and business communities, and then the coordinating committees and other forms of activity most of the work is duplicated or "triplicated," since there is that same pattern of organization in the republics, the provinces and the basic chambers. Nevertheless, the judgment is that from precisely those places the word of associated labor is not being heard very well. It is not sufficiently respected. Can something be improved through transformation?

It is a fact that from the basic chambers up to the Economic Chamber of Yugoslavia we are all organized in the same way and we are all doing everything; we are aware of the shortcomings, and indeed the transformation has begun in order to bring about an essential improvement in the situation, Filipovic said. "Following the extensive debates in the Assembly and in the republic and provincial chambers, it was our judgment that in the first phase we should begin a 'mini' reorganization, in the meantime make an analysis of the overall activity of the system of chambers, and then, pursuant to the new law which is to be adopted, undertake more complete changes in the chamber mechanism. To be sure, the duration of the reorganization is bound up to quite an extent to the discussions and polemics over changes in the political and economic system. The basic observations indicate that our administration is cumbersome and is not operating toward faster establishment of the unified Yugoslav market and a hastening of the process of pooling.

"We have to put an end to a practice which allows economic absurdities, and then later we request authentic understanding for such oversights," our interviewee continued. "I recently visited a sociopolitical community which has quite a bit of income available for pooling. We are prepared to pool those resources with organizations outside that sociopolitical community, but there is an obstacle in the social compact which directs those with a 'surplus' of income to pool their resources first with one of the enterprises in the region

that is operating at a loss. How, then, can we talk about 'the processes of pooling resources'?"

In view of this kind of organization (or lack of it), higher costs, administration (from the basic organization of associated labor to the Federation) and the like, we are still living quite well, Filipovic concludes. Capacity in the economy is being utilized at barely 60 percent, and recently TV Belgrade reported that the economy of the capital is operating at 20-50 percent of capacity. At the same time we are continuing to build unprofitable projects, but we want to overcome the crisis.

[Box]

#### Everyone Has His Own Calculation

"Instead of adding to the mechanism for pooling, in recent years we have been experiencing the reverse process: the closing off of markets, greater degovernmentalization, in formal terms there exist eight republic markets. All of this has influenced the patterns of the process of reproduction, has even created a 'political concept' of the organization of the government, and the basic chambers and provincial and republic chambers have been adapted to it. That accounts for the duplication and triplication of the work they do. But when we speak about the function of the government, it is obvious that the Economic Chamber has little room in this system.

"Here is an obvious example. The government created the SIZ [Self-Managing Community of Interest] for Foreign Economic Relations, and when business people reach agreement in the chamber about immediate tasks, this is subject to consent of that SIZ, which is essentially a government body," Filipovic mentioned. "If we want associated labor to make the decisions, why was that kind of SIZ not formed within the PKJ? Or an example from the Federal Community for Prices. It has 43 delegates, 25 from associated labor. In meetings where all branches of the economy are represented, the agreements are the same for all delegates of the economy, but when there are eight directors from the various republics and provinces, each has his own calculation. Which means that from the very outset of the chamber's formation the reverse order has been followed, not, that is, from the standpoint of the market and its laws, with functions being transferred to associated labor."

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CSO: 2800/116

## LIMITS OF MONETARY POLICY DISCUSSED

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 28 Nov-3 Dec 84 p 4

[Article by Dr Davor Savin: "Time Deposits Instead of Turnover"]

[Text] The effect of monetary policy in the second half of 1984 has been more restrictive than one would suppose from the indicators on the change of bank credits and the money supply. That is, the rise of prices is diminishing the real size of the monetary aggregates more than their "new" growth can make up. As a consequence the level of supply of real instruments of payment to the economy is smaller, and "illiquidity" is more pronounced. The higher the growth of the overall price index in the coming period, the smaller will be the real growth of money, if it does not fail to occur altogether. (In the first half of 1984, when prices were frozen, that is, when they rose at a rate ranging from 0.2 up to a maximum of 0.5 percent a month, the real growth of money aggregates was actually identical to their nominal change.) Credit-and-monetary policy cannot influence the relation between the growth of inflation and the quantity of money aside from increasing it beyond the planned level and in that manner stimulating demand inflation, which has otherwise been smothered after a number of years, and commodity-money relations are better balanced on the market.

There is yet another fact which distorts the picture of the economy's current liquidity. Here are a few remarks on that point.

In September 1984 the growth of the money supply amounted to 19.1 billion dinars,\* which is appreciably below its actual average growth in the previous months of this year (27.3 billion dinars). The cumulative change of the money over the period January-September was 246 billion dinars, and that corresponds to a growth rate of 36 percent (September 1984 over September 1983). It is evident that the newly created quantity of money has grown more slowly than prices, that is, the nominal social product, but the relationship between these two aggregates no longer suggests a confident conclusion as to the level of supply of money to the economy. The reason for this is that economic entities, especially organizations of associated labor in the economy, are

\* The statistical data on the basic monetary aggregates are regularly 1 to 2 months late. That is why it is not possible to reliably evaluate the current economic situation without taking that fact into account.

transferring a sizable portion of money to nonmoney deposits, which they are encouraged to do by the high rate of interest, the need to pay for imports, settlement of obligations come due to banks in Yugoslavia and abroad, various credit arrangements, etc.

One cannot reliably draw a conclusion that liquidity has deteriorated at a time when nonmonetary deposits are growing dynamically, and as a consequence ready cash in circulation is diminishing, decreasing proportionately the level of supply of instruments of payment to the economy. The restrictive movement of the money supply also occurs when the total quantity of money remains unchanged, but a portion of active deposits are transferred to inactive deposits.

### Third Successive Year of Growth

The growth of the money supply in 1984 is primarily the result of a change of short-term bank lendings. This is the third year in succession when they have grown faster than long-term lendings. (In September short-term credits were 40 percent higher than in the same months of the previous year, while long-term credits were up 21 percent.) The drop in investment activity has had the greatest impact on that pattern of bank credit, but it was also influenced by the high growth of interest rates. In addition, the accelerated growth of short-term bank lendings has also been influenced by the formation of inventories, which account for more than 12 percent of the value of the social product created (incidentally, in other industrial countries only between 2 and 3 percent of production goes to inventories).

Economic entities are resorting to piling up inventories not only because of the irregular and unsynchronized supply of raw materials and components, but also because of price policy. Since prices in the first half of the year were controlled, organizations of associated labor resorted to creating losses by holding work in process or semifinished goods in inventories--until approval of a price rise for their products, committing sizable amounts of working capital to that purpose.

The decrease of demand, but also the mismatch between the goods offered and the goods demanded, as well as their quite poor quality, have already stimulated a growth of inventories of finished goods, which are being covered with short-term credits at a rate of interest that is rapidly approaching the zone of real positive values. If the effort to preserve financial discipline and to achieve regular settlement of obligations of economic organizations, both to their customers and also to banks, is followed through, the economy will adapt to the new conditions in two ways: lowering prices by omitting to raise them in order to get rid of inventories (which would increase the liquid assets available in relative terms), or narrowing the assortment and adapting to smaller production runs, while at the same time cutting back production (which would also increase liquidity, but it would drive down the growth of industrial production and the growth of the social product along with it).

## Income From Interest

It is a characteristic of this year's monetary movements that the growth of the economy's liquid assets has kept up with the rate of growth of the total money supply; that is, the growth of the deposit money of the business sector has been the same as that of the total quantity of money. However, the identical marginal growth did not appreciably alter the absolute amount of liquid assets, nor the gap between the quantity of money in the hands of the two sectors: organizations in the economy continue to possess a considerably smaller supply of money than entities in noneconomic activities.

Because of the high interest rates entities both in the economy and in noneconomic activity are setting aside a portion of the available quantity of money in time deposits (on which an appreciably higher rate of interest is computed than on sight deposits), so that the balances in their giro accounts are smaller than they could have been. The demand for liquid money, then, is less than the amount of their total money assets.

## Basic Structure of the Money Supply, in billions of dinars

<u>Indicator</u>	<u>December 1983</u>	<u>September 1984</u>
Organizations of associated labor in the economy	284.7	352.4
Entities in noneconomic activities	297.1	412.1

## The Investment Train Has Been Braked

It has to be assumed that economic entities will strive not to commit the major portion of the growth of liquid income into consumption--if they are able--that is, they will cut back the demand for money to a minimum, which will in turn tend to raise the turnover coefficient of the money supply (remaining after the placement in time deposits we have mentioned). However, it is likely that in the present phase of the business cycle, when real income is stagnant or growing at a very moderate pace, there is no room for that kind of operation. Likewise, the indispensable need for greater investment in inventories is diminishing the availability of money for investment over the longer term. Incidentally, only a portion of organizations, those whose financial potential is sufficiently strong so that they can deprive themselves of a portion of liquid money for a specified period of time, can resort to conversion of money deposits to time deposits. Of course, the economy as a whole cannot do this without raising the turnover coefficient of the total money supply at a given size of the nominal social product.

Commodity-money relations on the market are improved when a portion of total buying power is withdrawn, but at the same time deflationary pressure is exerted on the production of certain branches and activities. Producers engaged in those activities will be spending income through higher costs which they will not get back through increased consumption. They will incur losses. At present work organizations in the construction sector provide a critical example, especially in housing construction, which is occurring because of the

slower investment in those activities. High prices are moving in the same direction, since consumers are renouncing a portion of expenditure (if they are able), transferring their demand to substitutes. Producers of means of production will find themselves in an especially unfavorable situation, since investments in fixed assets are dropping off, and this is the fifth successive year they have been in the zone of a negative growth rate.

On the basis of preliminary considerations, in 1985 the growth of the money supply is projected at 39 percent and that of bank lendings at 28 percent. The difference between these rates suggests the creation of money through foreign exchange transactions, above all on the basis of a growth of the inflow of foreign exchange from exports and tourism.

Since a real growth of all forms of expenditure is envisaged for the coming year, credit-and-monetary policy will face the difficult task of facilitating unhindered realization of the social product (which is projected to grow at 3 percent, while at the same time preventing prices from rising above the planned level (40 percent, which is an optimistic assumption). However, should the social product grow more slowly than has been projected (which should not be altogether precluded, because of the very sensitive tie-up and dependence between the growth of exports depending upon imports of production supplies and energy, and the growth of production), then the planned amount of the growth of savings, that is, of the money placed in time deposits, could be smaller. In that case liquidity would be greater, but at the same time there would also be greater pressure of demand on commodity stocks.

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CSO: 2800/121



## SHORTCOMINGS IN POOLING RESOURCES DISCUSSED

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 28 Nov-3 Dec 84 p 10

[Article by Katarina Sekulic: "Present 'Impasses' and Lasting Values"]

[Text] How many times is it that we have had to confront the disagreeable fact that the practice of concluding agreements on the pooling of labor and resources has so far not yielded sufficient results. It can even be said that the spread of agreements between work organizations on mutual and joint development plans, on commitment of investments and on linkage based on shared income is even now, after so many years of insistence on this, more the exception than the rule. This assessment cannot be avoided when one looks more closely at many of the accords and agreements in force; in numerical terms there are quite a few of them, but usually they are for a very short term, they are not sufficiently respected by the participants themselves, and they do not embody authentic income-sharing linkages.

## The Causes of the Slowness

If we look for the causes of this situation, they can be found within OUR's [organizations of associated labor] themselves and in the broader social milieu which surrounds them: in the kind of economy that now exists, overburdened with many impositions and excessively high social overhead. Among the objective reasons the most pronounced is still the economy's low ability to form capital. Given the chronic shortage of money and the impoverished savings of associated labor, many organizations can manage only simple reproduction. When we add to this the regional, republic and provincial rounding off of economic flows, and also the lack of sufficient community among OUR's [basic organizations of associated labor], especially when it comes to making decisions on savings and priority investments, one gets a fuller picture of what is called an objective circumstance. Then it is quite clear that the accords and agreements are only reflecting that situation.

Until recently one of the causes of this slowness was the lack of motivation to pool money at a time when credits were cheap, interest rates were low, and the rate of inflation was high. Now that interest rates have been raised considerably, taking the long view, there ought to be a greater interest in that kind of pooling, since there are no longer cheap credits, and all available money has to be used more optimally. Today, however, these interest rates

signify a painful blow to the economy, since in just the first 6 months of this year, say, it has set aside 305 billion dinars for interest, or 102 percent more than in the same period of last year.

Yet it also has to be said that many of the accords are concluded hastily and obligations are assumed which later cannot be discharged. It is only a small step from there to the degradation of these documents. Usually they are violated by those who sign them, and yet no one is called to account for this. We can only recall the many examples in which the agencies of sociopolitical communities have had to resort to administrative measures in order to ensure regular supply of certain key articles to the public, although even then there existed a ramified network of accords and compacts between many large systems and the cities.

### The Numbers and the Attributes

We, of course, do not mean that there do not exist authentic income-sharing linkages among many collectives and that they have not been fruitful, but rather that they have been inadequate both in their permanence and in their quality. We have in fact written in our newspaper about the many constructive examples of accords which have been concluded, out of a desire to contribute to the broader affirmation of those experiences, and on this occasion we will dwell on what is characteristic of these processes as a whole.

The pooling of labor and resources between OUR's from the advanced regions and OUR's from the underdeveloped regions is a story in itself, since here there have been quite a few concrete results, but also problems. Usually it is the permanent resources of the Federal Fund that are pooled, that is, that is what is mandatory, and here again there have not been enough linkages based on shared income, joint ventures and shared risks, so that this has been and remains a task for the future. We would recall that in the first 3 years of this 5-year period 386 self-management accords were signed and that the estimated cost of the investments they covered amounted to about 176 billion dinars, of which 44.8 billion dinars, or 25.4 percent, were the pooled resources of the Fund. Another 20 accords were signed in 5 months of this year. It is estimated that about 500 accords on joint ventures will be signed by the end of this 5-year period.

Although even the practical realization of these processes has been accompanied by many difficulties--from incomplete programs and subsequent "redesign," extensively lengthy negotiation, tardy inflow of the money committed to pooling, and all the way to long construction time--it can be said that the viability of this form of linkage has been confirmed in practice. All those making policy concerning the faster development of the underdeveloped republics and provinces confront all these problems almost daily in the conviction that there will be a faster change of everything that is now labeled as a shortcoming or a stumbling block. The people in the Fund say that opinions are being expressed more and more loudly to the effect that these programs and accords, those, of course, initiated by OUR's themselves, ought to be cleared with the respective associations in the Economic Chamber of Yugoslavia. This is, of course, just an idea as yet, as is the opinion that the accords should be given greater legal security once they have been concluded.

If we now go back to the problems of pooling in general, it is clear that specific measures are also needed to stimulate these processes. The Economic Chamber of Yugoslavia and the Yugoslav trade unions are now insisting on this, saying that the conditions should be created for greater economic motivation of associated labor to establish firmer links more rapidly. The people in the Yugoslav trade unions feel that the resolution on the country's development in 1985 should itself contain specific solutions and mechanisms to stimulate those processes.

If there is to be more linkage based on income sharing, it will have to receive support from credit-and-monetary policy and the policy governing taxes and contributions. A prerequisite for this is that all commercial banks be unified in giving priority support to joint ventures of domestic organizations and their linkages. They have been insisting on this for a long time in the Associated Bank of Belgrade, arguing that greater results can be anticipated only if this becomes the generally accepted bank arrangement. That is, bank support for development programs on a uniform principle would overcome many of the barriers and boundaries, which often coincide with the territory of specified sociopolitical communities.

The specific premise is that in practice the producers of raw materials and semifinished products and also those of energy and food do not regionally coincide with the processors of raw materials and other products and their consumers. This orients them toward the pooling of money, unless some of the banks themselves "deter them" from that, offering them credit without difficulties which they could not obtain somewhere else. Many banks have even drawn up their own models for the stimulation of pooling. Beobanka in fact has one such model, worked out in detail.

Aware of their role in this large task, the bankers have countless times pointed out that their efforts have to be accompanied by broader incentives. And, of course, also by greater commitment on the part of all those who have an influence on the rate of these processes—from the chambers and sociopolitical communities to self-managing communities of interest. It is clear, then, that everything that is lacking is contributing to the present witch's dance of the many disagreements and inconsistencies.

It was long ago said of the process of concluding self-management accords and compacts that this process ought to be an important element in overall social commitment and effectiveness. It is not that now, which is why we should anticipate that the measures being taken more broadly, which are aimed at combating inflation and improving the economy's position, would also facilitate more self-financing in the economy. Under such conditions the process of pooling labor and resources would have to go at a faster pace, assuming, of course, the incentives which many people are now advocating. If we look at the present inadequate amount of these investments from that standpoint, this should and must be disturbing, which does not diminish the lasting value of these commitments of ours.

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